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A REFERENCE ANNUAL

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Compiled by
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MINISTRY OF INFORMATION AND BROADCASTING
GOVERNMENT OF INDIA

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PREFACE

INDIA 1973 is the twentieth issue of the Annual that the Research and Reference Division of the Ministry of Information and Broadcasting compiles every year with the co-operation of the Central Ministries, State administrations and other authoritative sources. The publication, an established work of reference, carries information on diverse aspects of our national life, but it does not claim to be comprehensive or exhaustive. For readers seeking detailed information on specific subjects, the book carries a bibliography.

Improvements have been attempted in INDIA 1973. Readers will find the get-up more attractive and the text more readable. Illustrations have been introduced for the first time.

15 August 1972 marked the completion of twenty-five years of India's Independence. The Annual, accordingly, carries an assessment of these years in '25 Years in Retrospect'. The chapter 'Land Reform' has been merged with the chapter 'Agriculture', 'Scheduled and Backward Classes' with 'Social Welfare' and 'Community Development' with 'Co-operation'. While the chapter 'India and the World' has been dropped, 'States and Union Territories' has been recast and made more informative.

The text generally carries information which was available up to mid-1972, and in some cases later.

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KEY TO NUMERATION

1 lakh = One hundred thousand

10 lakh = 1 million

1 crore = 10 million

25 YEARS IN RETROSPECT

India celebrated a quarter century of Independence on 15 August 1972. Twenty-five years ago, on this day, the British transferred power to the rightful rulers of the country, the people of India. The event was unique for at least one reason: the transfer of power was effected not as a consequence of a clash of arms but as the culmination of a non-violent revolution led by Mahatma Gandhi, the greatest apostle of peace and non-violence in modern times.

How well have the people of India utilised their opportunities since they became free? How far have they kept the 'Tryst with Destiny' of which Jawaharlal Nehru spoke on the eve of Independence?

With the dawn of Independence, expectations soared high in every breast. People tended to believe that ignorance, disease, inequality and poverty would vanish as if by magic. Indeed, the leaders of free India were pledged to build a new social and economic order based on science and technology, reason and justice. But, before they could even take the reins of administration firmly in their hands the country was faced with the problem of its very survival.

The partition of the Indian sub-continent by the British, and the riots, bloodshed and the mass influx of millions of displaced persons that followed in its wake almost overwhelmed the infant state. As if this were not enough, India was compelled to take up arms in the defence of Kashmir which was attacked by tribal invaders aided and abetted by the armed forces of Pakistan.

These challenges had to be met by the new state on the morrow of Independence before it had attained either political cohesion or economic viability. Politically, the map of the country looked like a jigsaw puzzle of over 550 princely States with diverse patterns of administration and territories formerly known as British Provinces. Economically, the country which had been impoverished by a century and half of alien colonial regime was prostrate as a consequence of World War II and the partition.

All these gigantic tasks were taken up simultaneously. The resources of the infant state were geared to the task of providing homes and work to over 9 million persons who had crossed into the country in search of security and a new life.

The consolidation of the country was achieved in a remarkably short time and without resort to force. Popular governments were formed in the territories hitherto under the personal rule of the princes. Smaller units were merged with the larger viable neighbouring units. The process of consolidation was carried forward in 1956 when the boundaries of the States were redrawn to bring about greater linguistic and cultural homogeneity among the constituent units of the Republic.

GROWTH OF DEMOCRACY

Even while these immediate problems were being attended to, the Constituent Assembly went ahead with the work of giving the country a Constitution. In a comparatively short time of three years the task was completed and the first big step had been taken in the integration of the country. The Constitution, which was proclaimed on 26 January 1950, established a truly democratic and secular polity in which sovereignty vested in the people. The dignity of the individual was assured and equality of status and opportunity was guaranteed. Women were given equal rights with men, untouchability was abolished and weaker sections of the society were given special protection.

The reality of political equality in free India was demonstrated when the first General Elections under the new Constitution were held in 1951–52 in free and fair conditions on the basis of universal adult franchise. Though the vast majority of the electorate — 17.3 crores— was illiterate and had not taken part in any election before, they helped in planting the seeds of modern democracy in the country. Democracy continued to flourish and grow in strength as the country held four more General Elections, each time with a bigger electorate.

The introduction of Community Development Programme and Panchayati Raj, which brought autonomy to the people in the villages, further strengthened the grassroots of parliamentary democracy. The stability of parliamentary democracy was amply demonstrated during the Chinese aggression in 1962, the Indo-Pak wars in 1965 and 1971 and the smoothness with which the transition took place from Nehru era to Lal Bahadur Shastri's leadership. The peaceful and constitutional manner in which Smt. Indira Gandhi was chosen as the new Prime Minister following Shastri's death in January 1966 further demonstrated the success of the democratic institutions in the country since Independence.

DEMOCRATIC PLANNING

The process of planned economic development to give meaning and content to the political freedom was initiated in 1950 when the Planning Commission was set up. The First Five Year Plan, launched in 1951 after a country-wide discussion and debate, set in motion the basic policies aimed at social change and institutional reforms and designed to raise living standards and open out to the people new opportunities for a richer and happier life. Three five year plans and three annual plans have since been executed at a cost of Rs 31,065 crores. We are now in the last year of the Fourth Plan (Rs 24,882 crores) which lays special emphasis on social justice and diffusion of wealth, income and economic power. A unique feature of planning in India has been its democratic character which has evoked the willing sacrifice and cooperation of the people in the work of the transformation of the country.

ECONOMIC PROGRESS

As a result of planned development, the net national income at constant prices has doubled. Despite a rapidly growing population, natural calamities and external aggressions, the output of goods and services per person has increased appreciably. The sinews of economic growth —water and power potential, rail and road network and science and technology—have been strengthened and are increasingly being exploited for development. Dependence on external assistance has been reduced. The external payments position has greatly improved. The foreign exchange reserves which touched an all-time low of $524 million in mid-sixties, rose to $911 million by March 1972, notwithstanding the fact that $450 million had been repaid over the past few years to clear outstanding short-term indebtedness to the International Monetary Fund. The Indian economy is now in a position to think in terms of faster growth and eradication of poverty and unemployment.

INDUSTRIAL DEVELOPMENT

In industry, the progress has been striking. Industrial production has more than trebled. The country now produces a wide range of products from simple consumer goods to a variety of sophisticated equipment. Virtual self-sufficiency has been achieved in equipment needed for the railways, road transportation and communications. Machinery required by traditional industries like textiles, sugar and cement is also now made in the country. In fact, there has been more than a fifteen-fold increase in the output of industrial machinery.

The magnitude and pattern of industrial growth has been such that India now possesses not only a broad, diversified and substantial industrial base but is also in a position to export manufactured goods in a significant measure and to establish joint industrial ventures abroad. This has been made possible by the steady expansion of the public sector. In 1951, there were only five public sector undertakings with an investment of Rs 29 crores. Today there are 97 such undertakings with an investment of Rs 4,682 crores and employing nearly half of the total work force in the organised sectors of activity.

AGRICULTURAL PROSPERITY

The process of growth and structural change has not been confined to the industrial sector alone. The 'Green Revolution' has helped to reduce greatly the chronic food deficit and the country is looking forward to self-sufficiency. The output of foodgrains, which was 55 million tons in 1950-51, reached the record level of 107.8 million tonnes in 1970-71. As a result, imports have been reduced. The net availability of foodgrains per person has risen by about 16 per cent over the last two decades despite the increase in population.

RURAL DEVELOPMENT

The development of the economy in general and the headway made in the agricultural and industrial sectors in particular, have been possible by transformation in rural India, which for centuries had remained cut off from the mainstream of the national life. Shortly after Independence, a massive programme of rural development (Community Development Movement) was launched which has helped to foster initiative and self-help among the village people and to improve agriculture, health, sanitation, education, housing and all other aspects of rural life with the active cooperation of the people themselves. The introduction of Panchayati Raj in 1959 further helped to accelerate the process of change. The two programmes together removed the inertia which had enveloped rural areas. Today, there are not many villages which do not have a school, a dispensary, and a well or hydrant for clean drinking water. Primary Health Centres, which dot the rural landscape, provide maternity and child health services, control communicable diseases and advise on family planning. Electricity has reached the countryside and thousands upon thousands of pumping sets are helping to carry out the agricultural programmes. Cultivators have been assured security of tenure through radical measures of land reform. Increasing irrigation facilities have been made possible by giant multipurpose river valley schemes. New employment opportunities have been created by encouraging the growth of village industries and handicrafts. All these efforts have helped to make the life of the rural people a bit happier and easier.

SOCIAL SECURITY

Since Independence, much has also been done—though much still remains to be done—to improve the lot of the industrial workers. They have been provided a measure of security through various social security schemes and their conditions of work have improved. Industrial workers now enjoy better wages, medical care, accident benefits, retrenchment benefits, besides other facilities. The interests of agricultural and plantation labour have also been safeguarded. Minimum wages for agricultural workers have been fixed. Social security measures like the Central Government (Revised) Family Pension Scheme and the Health Scheme cover a large number of Government servants.

Welfare of women and children has been the purpose of various socio-economic programmes that are carried out through the Central Social Welfare Board, State Boards and voluntary organisations. Under these programmes urban community centres have been established to assist women in supplementing their incomes. In the rural areas, welfare extension projects have been set up to promote women's welfare by providing maternity and child health services, craft classes, social education and care of children.

CULTURAL RESURGENCE

The advent of Independence has helped revive India's great cultural heritage of dance, drama, music and art, which had suffered a set back during foreign rule. Three National Akademies for the promotion of art, music and dance, and literature have been set up. Regional Akademies are functioning at the State level for the development of these arts. Awards have been instituted to encourage artistes and writers as well as for the promotion of graphic and cinematic arts. A system of scholarships to promising young artistes has been introduced for discovering and fostering talent.

The cultural resurgence owes a great deal to the rapid development of mass media in the country. Through a network of 67 stations, All India Radio broadcasts programmes for all the linguistic regions of the country. The Television has come to stay and is on the threshold of a rapid expansion.

Feature films, in the production of which India now leads the world, are produced in the principal languages and exhibited all over the country. Documentary films depicting the life, art and culture of people in different regions of the country are screened in cinema houses. The press, which comprises over 12,000 newspapers, besides informing the people, contributes to the advancement of the arts.

There has been many-sided progress in India, although much still remains to be done. A firmly established nation-state with an indefinable sense of Indianness that binds all its citizens together in a composite democratic society has come into being. A stable political system has been established. A Government dedicated to orderly progress enjoys the mandate of the people. New signs and symbols of progress have come up everywhere. The giant irrigation dams at Bhakra and Hirakud, the huge steel plants at Bhilai, Rourkela and Durgapur, the aircraft factories at Bangalore, Hyderabad and Nasik, the Atomic Reactor at Trombay, the rocket launching station at Thumba, the Television centres at New Delhi and Bombay are a few among the more tangible gains. Larger sections of the people are better off as a result of the five year plans. The frustration and despondency born of a century and half of alien rule and economic stagnation has yielded place to a vision of a better life and the will to work for it. In the words of Prime Minister Indira Gandhi "there is no parallel to what we are trying to achieve in India today...We are attempting to bridge, in a matter of decades, the gap created by a century and more of stagnation."

I THE LAND AND THE PEOPLE

India, also known as Bhārat, is the second most populous and the seventh largest country in the world. Lying entirely in the northern hemisphere, it covers an area of 32,80,483* sq. km. The mainland extends between latitudes 8° 4′ and 37° 6′ north and longitudes 68° 7′ and 97° 25′ east and measures about 3,214 km from north to south between the extreme latitudes and about 2,933 km from east to west between the extreme longitudes. It has a land frontier of 15,200 km and a coast line of 6,083 km.

THE PHYSICAL BACKGROUND

The mighty Himālayās and other lofty mountains—Muztāgh Ata, Aghil and Kunlun mountains to the north of Kashmīr and Zāskār mountains to the east of Himāchal Pradesh and north of Uttar Pradesh—form India's northern boundary, except in the Nepāl region. She is adjoined in the north by China and Nepāl. A series of mountain ranges in the east separate India from Burma. Also in the east, lies Bānglādesh bounded by the Indian States of West Bengal, Assam, Meghālaya and Tripura. In the north-west, Afghānistān and Pakistan border on India. South of the Tropic of Cancer, the country tapers off into the Indian Ocean between the Arabian Sea on the west and the Bay of Bengal on the east. The Gulf of Manaar and the Palk Strait separate India from Sri Lanka. The Andaman and Nicobar Islands in the Bay of Bengal and the Laccadive, Minicoy and Amīndīvi Islands in the Arabian Sea are parts of the territory of India.

PHYSICAL FEATURES

The Mainland comprises three well-defined regions, namely, the great mountain zone, the Indo-Gangetic Plain and the Southern Peninsula.

The Himālayās comprise three almost parallel ranges interspersed with large plateaus and valleys some of which, like the Kashmīr and Kulu Valleys, are fertile, extensive and of great scenic beauty. Some of the highest peaks in the world are to be found in these ranges. The high altitudes limit travel only to a few passes, notably the Jelep La and Natu La on the main Indo-Tibet trade route through the Chumbi Valley north-east of Darjeeling and Shipki La in Sutlej Valley north-east of Kalpa (Kinnaur). The mountain wall extends over a distance of about 2,400 km with a varying depth of 240 to 320 km. In the east, between India and Burma and India and Bānglādesh the hill ranges are much lower. The Gāro, Khāsi, Jaintia and Nāga hills running almost east-west join the chain of the Lushai and Arakan hills running north-south.

The Indo-Gangetic Plain, about 2,400 km long and 240 to 320 km broad, is formed by the basins of three distinct river systems, the Indus, the Ganga and the Brahmaputra. It is one of the world's greatest stretches of flat alluvium and also one of the most densely populated areas on earth. There is hardly any variation in relief. Between the Yamuna River at Delhi and the Bay of Bengal, nearly 1,600 km away, there is a drop of only 200 metres in elevation.

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*Provisional, as on 1 July 1971.

The Peninsular plateau is marked off from the Indo-Gangetic Plain by a mass of mountain and hill ranges varying from 460 to 1,220 metres in height. Prominent among these are the Arāvalli, Vindhya, Sātpura, Maikala and Ajanta. The Peninsula is flanked on one side by the Eastern Ghāts, where the average elevation is about 610 metres, and on the other by the Western Ghāts, where it is generally from 915 to 1,220 metres, rising in places to over 2,440 metres. Between the Western Ghāts and the Arabian Sea lies a narrow coastal strip, while between the Eastern Ghāts and the Bay of Bengal there is a broader coastal area. The southern point of the plateau is formed by the Nilgiri Hills where the Eastern and Western Ghāts meet. The Cardamom Hills lying beyond may be regarded as a continuation of the Western Ghāts.

GEOLOGICAL STRUCTURE

Geologically also, India consists of the same three distinct units, namely, the Himālayās and their associated group of mountains, the Indo-Gangetic Plains and the ancient block of the Peninsula.

The Himālayān mountain belt to the north and the Nāga-Lushai mountains in the east are regions of mountain building movement extending over 7 crore years. Much of the area, now presenting some of the most magnificent mountain scenery in the world, was under marine conditions over a period of about 20 crore years. Sediments accumulated in different parts of the same over basements of rocks ranging in age from the earliest times to about 22.5 crore years. In a series of relief building movements commencing about 7 crore years ago, these sediments and the basements of rocks in various configurations rose to great heights. The elements worked on these to produce the relief seen today. The low hill ranges in the sub-Himālayān region were formed by buckling of the material derived by erosion from the rising mountains.

The Indo-Gangetic Plain extends over 7,75,000 sq. km. The alluvial mantle, decreasing towards the southern Peninsular shield, may exceed 2,000 metres in thickness at places. Westward this alluvial plain merges with the alluvial plains of western India. The age of this alluvial plain may not exceed 10 thousand years, though at places, it may be considerably younger.

The Peninsula is a region of relative stability and rare seismic disturbances. The basal complex of the larger part of the Peninsula consists of highly metamorphosed rocks of the earliest periods.

RIVER SYSTEMS

The rivers in India may be classified as follows: (a) Himālayān rivers, (b) Deccan rivers, (c) coastal rivers, and (d) rivers of the inland drainage basin. The Himālayān rivers are generally snow-fed and have, therefore, continuous flow throughout the year. During the monsoon months, the Himālayās receive very heavy rainfall and the rivers discharge the maximum amount of water causing frequent floods. The Deccan rivers are generally rain-fed and, therefore, fluctuate in volume. A large number of streams are non-perennial. The coastal streams, specially of the west coast, are short in length and have limited catchment areas. Most of them are non-perennial. The streams of the inland drainage basin of western Rājasthan are few and far between. Most of them are of an ephemeral character. They drain towards the individual basins or salt lakes like the Sāmbhar or are lost in the sands, having no outlet to the sea. The Lūni is the only river that drains into the Rann of Kutch.

The Ganga basin is the largest in India receiving waters from an area which comprises about one-quarter of the total area of the country. Its boundaries are well defined by the Himālayās in the north and the Vindhya mountains in the south. The Ganga has two main headwaters in the Himālayās—the Bhāgirathi and the Alaknanda, the former rising from the Gangotri glacier at Gaumukh. The Ganga is joined by a number of Himālayān rivers including the Yamuna, Ghāghra, Gandak and the Kosi. The westernmost river of the Ganga system is the Yamuna, which rises in the Yamnotri glacier and joins the Ganga at Allahabad. Among the rivers flowing north from central India into the Yamuna or the Ganga, are the Chambal, Betwa and Son.

The second largest river basin in India is that of the Godāvari. It covers an area which comprises about 10 per cent of the total area of India. The Krishna basin is the second largest in Peninsular India. The Mahanādi flows through the third largest basin in the Peninsula. The basins of the Narmada in the uplands of the Deccan and of the Cauvery in the far south are of about the same size, though of different character and shapes.

Two other river systems, which are small but nevertheless agriculturally important, are those of the Tāpi in the north and the Penner in the south.

LIMATE

The India Meteorological Department recognises four seasons: (i) winter season (December-February); (ii) the hot weather season, summer, (March-May); (iii) the rainy season, south west monsoon period, (June-September); and (iv) the post-monsoon period, known as north east monsoon period in the South Peninsula, (October-November).

There are four broad climatic regions based on the rainfall. Practically entire Assam and neighbourhood, the Western Ghāts and the adjoining coastal strip and parts of the Himālayās are areas of very heavy rainfall. Some places in the Khâsi and Jaintia hills of Meghalaya receive the heaviest rainfall in the world. In contrast, Rājasthan, Kutch and the high Ladakh plateau of Kashmīr extending westward to Gilgit are regions of low precipitation. In between these areas, at the extreme ends of the rainfall range, are two areas of moderately high and low rainfall. The former consists of a broad belt in the eastern part of the peninsula merging northward with the north Indian plains. The latter runs from the Punjab plains across the Vindhya mountains into the western part of the Deccan, extending further east in Mysore and Andhra Pradesh.

While the rainy season in most parts of the country is from June to September, in Tamil Nadu and Andhra Pradesh it is during October-November.

AUNA

Possessing a tremendous diversity of climate and physical conditions, India has a great variety of fauna. The Himālayān fauna—the great Tibetan sheep, the blue sheep, the urial, the magnificent markhor, the ibex, serow, gural and the unique takin, the Tibetan gazelle and the Tibetan antelope, from whose underfur is made the finest "Cashmere" wools, the thick-furred snow-leopard, the red bear and the Himālayān black bear—are to be found from the foothills to heights up to about 5,500 metres.

The hill forests of Assam have the only Indian ape, the hoolock gibbon. All the other monkeys of India are either langurs or macaques. The common langur is found all over India, while Assam has a capped langur, and the semi-evergreen forests of the Nilgiris, the Nilgiri langur, and the lion-tailed macaque. South of the river Godāvari, the bonnet monkey is seen.

The lion now inhabits the Gir Forest of Gujarat, while the tiger is met with at suitable habitats in most parts of India, especially in the Kanha and Corbett National Parks and in Kaziranga and Betla Sanctuaries. The leopard is also well distributed. The black leopard, is, however, rare in the country, mostly occurring in the dense forests of the south and in the east.

Civets and mongooses are plentiful. The giant squirrel flourishes in the forests of the Western Ghāts and other hilly tracts. Porcupine and flying squirrels are also denizens of the same forests. The otter is found in and around hill-streams and rivers. The hyena (the striped variety) is nocturnal, and, therefore, seldom seen.

The sloth bear is to be found in most forested regions of the country. The elephant occurs in some of the sanctuaries especially those in the south and in the Corbett National Park. The Periyar Sanctuary in Kerala has wild elephants, both herds and lone tuskers.

The Kaziranga and Manas Sanctuaries in Assam and the Jaldapara Sanctuary in Bengal have the Indian rhinoceros. The wild buffalo is now met with only in a few isolated areas, like the Manas and Kaziranga Sanctuaries in Assam and in Bastar, Madhya Pradesh. Gaur, the tall and handsome oxen, with white-stockings, can be seen in the Periyar, Bandipur and Mudumalai Sanctuaries in the south as well as in Taroba and Kanha. The wild pig is still fairly common in many forest areas.

Herds of black buck, the loveliest of all antelopes and one of the fastest, can be seen in the Kanha National Park in Madhya Pradesh and in the Guindy Park in Madras as well as in the Bhal and Chapar Tal Sanctuaries. Chinkara, the Indian gazelle, the burly niglai with spike-like horns and, the unique four-horned antelope, Chousingha are other animals of the plain and bush.

India has a very large variety of deer. The most regal of them, the Sambar, is distributed all over the country. The Hangul or Kashmīr stag, another grand deer, is seen in the Dachigam Sanctuary in Kashmīr. The swamp deer or Barasingha is to be met with in the Dudhwa Sanctuary in Uttar Pradesh as well as in Kaziranga. The Kanha Park is also known for this animal. The exclusively Indian Chital (spotted deer), the barking deer, the hog deer, the musk deer of the Himālayās and the dinky little mouse deer are among the other species of the deer family.

Among the reptiles, India has three varieties of crocodilia—the common crocodile or mugger, the salt-water crocodile and the long snouted gharial. Amongst the snakes, cobra, krait, viper and the python are all present.

Birds include the peacock, parrot, maina, different kinds of vultures and eagle including the huge Lammergeyer, Kingfishers, pheasants, bustards, pigeons, ducks, partridges, plover, quail and snipe.

River and lake fishes include the carp family, cat fishes, the hilsa and the famous game-fish, the mahseer.

The growth of population and dwindling reserves of forest have affected the fauna in India, as elsewhere. The Government of India, conscious of the need to preserve this national asset, has set up the Indian Board for Wild Life and the National Committee for Bird Preservation. Similar boards have been formed in the States also. National parks and sanctuaries have been set up in the country for the protection of wild life. These are being made more viable and better protected units for conservation.

THE DEMOGRAPHIC BACKGROUND

CENSUS

Census in India has been taken regularly every ten years since 1881. The latest in 1971 marked the completion of 100 years of decennial census-taking in the country. The enumeration was conducted between 10 March and 3 April 1971 (with reference period as the sunrise of 1 April) except in certain areas where it was taken between September 1970 and February 1971. Over 12 lakh enumerators were employed on "Operation Census". The highlights of 1971 census are given in Table 1·1.

TABLE 1.1
1971 CENSUS
FACTS AT A GLANCE

Population of India	Persons	548 million
	Males	284 million
	Females	264 million
Decennial growth rate 1961-71	24.80 per cent	
Density of population	178 per sq. km*	
Sex ratio	930 females per 1,000 males	
Literacy rate (Including age group 0-4)	Persons	29.45 per cent
	Males	39.45 per cent
	Females	18.70 per cent
Proportion of urban population to total population	19.91 per cent	
Percentage of workers to total population (main activity only)	Persons	32.92
	Males	52.50
	Females	11.85
Categories of workers	*Percentage to total workers*	
I. Cultivators	Total	43.34
	Males	38.20
	Females	5.14
II. Agricultural Labourers	Total	26.33
	Males	17.57
	Females	8.76
III. Livestock, Forestry, Fishing, Hunting, Plantations, Orchards and allied activities	Total	2.38
	Males	1.95
	Females	0.43
IV. Mining and Quarrying	Total	0.51
	Males	0.44
	Females	0.07
V. Manufacturing, Processing, Servicing and Repairs		
(a) Household Industry	Total	3.52
	Males	2.78
	Females	0.74
(b) Other than Household Industry	Total	5.94
	Males	5.46
	Females	0.48
VI. Construction	Total	1.23
	Males	1.12
	Females	0.11
VII. Trade and Commerce	Total	5.57
	Males	5.26
	Females	0.31
VIII. Transport, Storage and Communications	Total	2.44
	Males	2.36
	Females	0.08
IX. Other Workers	Total	8.74
	Males	7.50
	Females	1.24

*Density worked out after excluding the figures of Jammu and Kashmir as the figures of the area beyond the cease-fire line are not available.

TABLE 1.2

GROWTH OF POPULATION (1901-1971)

State/Union Territory	1901	1911	1921	1931	1941	1951	1961	1971
INDIA	23,83,37,313	25,20,05,470	25,12,39,492	27,88,67,430	31,85,39,060	36,09,50,365	43,90,72,582	54,79,49,809
States								
Andhra Pradesh	1,90,65,921	2,14,47,412	2,14,20,448	2,42,03,573	2,72,89,340	3,11,15,259	3,59,83,447	4,35,02,708
Assam	32,89,680	38,48,617	46,36,980	55,60,371	66,94,790	80,28,856	1,08,37,329	1,46,25,152
Bihar	2,73,11,865	2,83,14,281	2,81,26,675	3,13,47,108	3,51,70,840	3,87,82,271	4,64,47,457	5,63,53,369
Gujarat	90,94,748	98,03,587	1,01,74,989	1,14,89,828	1,37,01,551	1,62,62,657	2,06,33,350	2,66,97,475
Haryana	46,23,079	41,74,690	42,55,905	45,59,931	52,72,845	56,73,614	75,90,543	1,00,36,808
Himachal Pradesh	19,20,294	18,96,944	19,28,206	20,29,113	22,63,245	23,85,981	28,12,463	34,60,434
Jammu & Kashmir*	21,39,362	22,92,535	24,24,359	26,70,208	29,46,728	32,53,852	35,60,976	46,16,632
Kerala	63,96,262	71,47,673	78,02,127	95,07,050	1,10,31,541	1,35,49,118	1,69,03,715	2,13,47,375
Madhya Pradesh	1,68,60,768	1,94,40,965	1,91,71,750	2,13,55,657	2,39,90,608	2,60,71,637	3,23,72,408	4,16,54,119
Maharashtra	1,93,91,643	2,14,74,523	2,08,49,666	2,39,59,300	2,68,32,758	3,20,02,564	3,95,53,718	5,04,12,235
Manipur	2,84,465	3,46,222	3,84,016	4,45,606	5,12,069	5,77,635	7,80,037	10,72,753
Meghalaya	3,40,524	3,94,005	4,22,403	4,80,837	5,55,820	6,05,674	7,69,380	10,11,699
Mysore	1,30,54,754	1,35,25,251	1,33,77,599	1,46,32,992	1,62,55,368	1,94,01,956	2,35,86,772	2,92,99,014
Nagaland	1,01,550	1,49,038	1,58,801	1,78,844	1,89,641	2,12,975	3,69,200	5,16,449
Orissa	1,03,02,917	1,13,78,875	1,11,58,586	1,24,91,056	1,37,67,988	1,46,45,946	1,75,48,846	2,19,44,615
Punjab	75,44,790	67,31,510	71,52,811	80,12,325	96,00,236	91,60,500	1,11,35,069	1,35,51,060
Rajasthan	1,02,94,090	1,09,83,509	1,02,92,648	1,17,47,974	1,38,63,859	1,59,70,774	2,01,55,602	2,57,65,806
Tamil Nadu	1,92,52,630	2,09.02,616	2,16,28,518	2,34,72,099	2,62,67,507	3,01,19,047	3,36,86,953	4,11,99,168
Tripura	1,73,325	2.29,613	3,04,437	3,82,450	5,13,010	6,39,029	11,42,005	15,56,342
Uttar Pradesh	4,86,27,655	4,81,54,908	4,66,72.398	4,97,79,538	5,65,35,154	6,32,19,655	7,37,54,554	8,83,41,144
West Bengal	1,69,40,088	1,79,98,769	1,74,74,348	1,88,97,036	2,32,29,552	2,62,99,980	3,49,26,279	4,43,12,011
*Union Territories***								
Andaman & Nicobar Islands	24,649	26,459	27,086	29,463	33,768	30,971	63,548	1,15,133
Arunachal Pradesh	..	..	..	..	..	..	3,36,558	4,67,511
Chandigarh	21,967	18,437	18,133	19,783	22,574	24,261	1,19,881	2,57,251
Dadra & Nagar Haveli	24,280	29,020	31,048	38,260	40,441	41,532	57,963	74,170
Delhi	4,05,819	4,13,851	4,88,452	6,36,246	9,17,939	17,44,072	26,58,612	40,65,698
Goa, Daman & Diu	5,07,518	5,19,222	5,00,904	5,41,710	5,83,736	5,96,059	6,26,667	8,57,771
L.M. & A. Islands	13,882	14,555	13,637	16,040	18,355	21,035	24,108	31,810
Mizoram	82,434	91,204	98,406	1,24,404	1,52,786	1,96,202	2,66,063	3,32,390
Pondicherry	2,46,354	2,57,179	2,44,156	2,58,628	2,85,011	3,17,253	3,69,079	4,71,707

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* The population of Jammu and Kashmir for 1951 has been taken to be the arithmetic mean of 1941 and 1961 population. The population of the State for 1941 and earlier censuses has been adjusted to exclude that of areas currently under the illegal occupation of Pakistan and China. Later figures exclude the population of such areas.

** Population figures for Goa, Daman and Diu and Dadra and Nagar Haveli for 1901, 1911, 1941 and 1951 have been assumed to be the same as in 1900, 1910, 1940 and 1950 respectively. Similarly, figures for Pondicherry for 1951 have been assumed to be the same as in 1948. The 1961 figures for Goa, Daman and Diu relate to the census taken by the Portuguese authorities with reference date as 15 December 1960; figures for Dadra and Nagar Haveli relate to 1962 census with reference date as 1 March 1962.

The final population figure of 54,79,49,809 as on 1 April 1971 when compared with the figure of 43,90,72,582 in 1961 shows an increase of 24·80 per cent during the decade. The main causes of this increase are better health conditions, effective control of epidemics, efficient handling of famine situation, general improvement and economic development. Although the birth rate has not fallen appreciably, the death rate has fallen to some extent.

Table 1·2 shows population growth since 1901.

AREA AND DENSITY

The area and density of population in various States and Union Territories is shown in Table 1·3. Madhya Pradesh covering an area of 4,42,841 sq. km is the largest, and Uttar Pradesh with

TABLE 1.3
AREA AND DENSITY OF POPULATION

State/Union Territory	Area (sq. km)£	Population 1971	**Density of population per sq. km**
INDIA	32,80,483	54,79,49,809	**178@**
States			
Andhra Pradesh	2,76,754	4,35,02,708	**157**
Assam†	78,523	1,46,25,152	**186**
Bihar	1,73,876	5,63,53,369	**324**
Gujarat	1,95,984	2,66,97,475	**136**
Haryana	44,222	1,00,36,808	**227**
Himachal Pradesh	55,673	34,60,434	**62**
Jammu & Kashmir	2,22,236† †	46,16,632	**N.A.**
Kerala	38,864	2,13,47,375	**549**
Madhya Pradesh	4,42,841	4,16,54,119	**94**
Maharashtra	3,07,762	5,04,12,235	**164**
Manipur*	22,356	10,72,753	**48**
Meghalaya*	22,489	10,11,699	**45**
Mysore	1,91,773	2,92,99,014	**153**
Nagaland	16,527	5,16,449	**31**
Orissa	1,55,842	2,19,44,615	**141**
Punjab	50,362	1,35,51,060	**269**
Rajasthan	3,42,214	2,57,65,806	**75**
Tamil Nadu	1,30,069	4,11,99,168	**317**
Tripura*	10,477	15,56,342	**149**
Uttar Pradesh	2,94,413	8,83,41,144	**300**
West Bengal	87,853	4,43,12,011	**504**
Union Territories			
Andaman & Nicobar Islands	8,293**	1,15,133	**14**
Arunachal Pradesh*	83,578	4,67,511	**6**
Chandigarh	114	2,57,251	**2,257**
Dadra & Nagar Haveli ..	491	74,170	**151**
Delhi	1,485	40,65,698	**2,738**
Goa, Daman & Diu ..	3,813	8,57,771	**225**
L.M. & A. Islands	32	31,810	**994**
Mizoram*	21,087	3,32,390	**16**
Pondicherry	480	4,71,707	**983**

£ Provisional, as on 1 July 1971.

@ Density has been worked out after excluding population and area figures of Jammu & Kashmir.

† As reorganised on 21 January 1972 according to North-Eastern Areas (Reorganisation) Act, 1971.

† † Includes area under the illegal occupation of Pakistan and China.

* According to the North-Eastern Areas (Reorganisation) Act, 1971, the following constitutional changes have taken place with effect from 21 January 1972. The Union Territories of Manipur and Tripura have become full-fledged States, NEFA has been formed into a new Union Territory of Arunachal Pradesh, autonomous State of Meghalaya into a full-fledged State of Meghalaya and the Mizo district of Assam has been formed as the Union Territory of Mizoram.

** As on 1 January 1966.

N.A. —Not available.

88,341,144 inhabitants, the most populous State. The Union Territory of Delhi has the highest density of population accounting for 2,738 persons per sq. km.

The density of population and the percentage increase of population between 1921 and 1971 are as follows:

TABLE 1.4
DENSITY AND INCREASE OF POPULATION

Year	Density per sq. km	Decade	Per cent increase in population
1921	79		
1931	88	1921–31	11.0
1941	100	1931–41	14.2
1951	113	1941–51	13.3
1961	138	1951–61	21.6
1971	178*	1961–71	24.8

* Density worked out after excluding the population and area of Jammu & Kashmir.

BIRTH AND DEATH RATES

There is a difference in the birth and death rate figures based on the registration data (R) and those estimated (E) by the census data. This is explained by the fact that many births and deaths go unregistered in the country. Table 1·5 gives the birth and death rates per thousand during the five decennia up to 1970.

TABLE 1.5
BIRTH AND DEATH RATES (DECENNIAL AVERAGES)

Decade	1921–30		1931–40		1941–50		1951–60		1961–70@	
	R	E	R	E	R	E	R	E	R	E
Birth Rate	33	46.4	34	45.2†	28	39.9	22	41.7	N.A.	39.9
Death Rate	26	36.3	23	31.2†	20	27.4	11	22.8	N.A.	18.1

@ Provisional, based on Expert Committee Population Projections.
† Unofficial estimates.
N.A. —Not available.

According to studies based on census data for 1951 and 1961, births had occurred at an average rate of 42 per thousand per annum, and deaths at an average rate of 23 per thousand per annum, giving a rate of natural increase of population of 19 per thousand per annum.

The infant mortality rate, which used to run at a level of 250 per thousand births in the early part of the century, has now declined considerably, but is still quite high when compared to other countries. According to the National Sample Survey, 14th round, in 1958 it was 146 per thousand live births. There is only a small change in the birth rate but the death rate has declined sharply during 1951-60.

This resulted in a sharp increase in the population growth rate during 1951-60.

Among the States, the highest birth rate during 1951-60 was in Assam (49·3) and the lowest in Tamil Nadu (34·9). The highest death rate was also in Assam (26·9) and the lowest in Kerala (16·1). The highest natural increase rate was in Punjab (25·8) and the lowest in Tamil Nadu (12·4).

LIFE EXPECTANCY

Estimates of life expectancy for males and females at decennial censuses since 1901 are given in the Table below. There was a steady though slow increase in life expectancy during the successive decades, but it was considerably accelerated during 1951-60. The sharp drop in life expectancy during 1911-20 was largely due to the influenza epidemic.

TABLE 1.6
LIFE EXPECTANCY-DECENNIAL POSITION

Expectation of life at birth	1901-1910	1911-1920	1921-1930	1931-1940	1941-1950	1951-1960	1961-1970†
Males	22.59	19.42*	26.91	32.09*	32.45	41.90	47.0
Females	23.31	20.91*	26.56	31.37*	31.66	40.60	45.6

† Provisional, based on Expert Committee Population Projections.
* Unofficial estimates.

AGE STRUCTURE AND SEX RATIO

The following Table shows the percentage of different age-groups to the total population according to the 1971 census. Table 1·8 gives the changes in sex ratio between 1901 and 1971.

TABLE 1.7
AGE STRUCTURE (1961)

Age Group	0—14	15 to 19	20 to 24	25 to 29	30 to 39	40 to 49	50 to 59	60+	Age not stated
Percentage of the total population	42.0	8.7	7.9	7.4	12.6	9.3	6.1	6.0	N

N—Negligible

THE SOCIAL PATTERN*

The break-up of the population according to age and marital status is shown in Table 1·9.

RELIGIONS

Table 1·10 shows the population of the major religious communities in the various States and Union Territories.

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* Figures given in tables of this volume now exclude Sikkim. This explains variations from those given in the earlier volumes.

TABLE 1.8

Changes in Sex Ratio Between 1901 and 1971

State/Union Territory	Females per 1,000 males							
	1901	1911	1921	1931	1941	1951	1961	1971
INDIA	972*	964	955	950*	945*	946	941	930
States								
Andhra Pradesh	985	992	993	987	980	986	981	977
Assam	919	915	896	874	875	868	869	896
Bihar	1,054	1,044	1,016	994	996	990	994	954
Gujarat	954	946	944	945	941	952	940	934
Haryana	867	835	844	844	869	871	868	867
Himachal Pradesh	884	889	890	897	890	912	938	958
Jammu & Kashmir	882	876	870	865	869	873**	878	878
Kerala	1,004	1,008	1,011	1,022	1,027	1,028	1,022	1,016
Madhya Pradesh	990	986	974	973	970	967	953	941
Maharashtra	978	966	950	947	949	941	936	930
Manipur	1,037	1,029	1,041	1,065	1,055	1,036	1,015	980
Meghalaya	1,036	1,013	1,000	971	966	949	937	942
Mysore	983	981	969	965	960	966	959	957
Nagaland	973	993	992	997	1,021	999	933	871
Orissa	1,037	1,056	1,086	1,067	1,053	1,022	1,001	988
Punjab	832	780	799	815	836	844	854	865
Rajasthan	905	908	896	907	906	921	908	911
Tamil Nadu	1,044	1,042	1,029	1,027	1,012	1,007	992	978
Tripura	874	885	885	885	886	904	932	943
Uttar Pradesh	937	915	909	904	907	910	909	879
West Bengal	945	925	905	890	852	865	878	891
Union Territories								
Andaman & Nicobar Islands	318	352	303	495	574	625	617	644
Arunachal Pradesh££	..	..	..	..	..	..	894	861
Chandigarh	771	720	743	751	763	781	652	749
Dadra & Nagar Haveli	960	967	940	911	925	946	963	1,007
Delhi	862	793	733	722	715	768	785	801
Goa, Daman & Diu	1,085	1,103	1,122	1,088	1,083	1,128	1,071	989
L.M. & A. Islands	1,063	987	1,027	994	1,018	1,043	1,020	978
Mizoram	1,113	1,120	1,109	1,102	1,069	1,041	1,009	946
Pondicherry	N.A.	1,058	1,053	N.A.	N.A.	1,030@	1,013	989

* Excludes Pondicherry.

** For calculating sex ratio, the arithmetic mean of 1941-61 sex-wise population has been taken.

££ Censused for the first time in 1961.

@ Based on the 1948 population assumed as 1951 population.

N.A.—Not available.

TABLE 1.9

AGE AND MARITAL STATUS (1961)

(in thousands)

Age group	TOTAL POPULATION			MARITAL STATUS									
	Persons	Males	Females	Never married		Married		Widowed		Divorced & separated		Unspecified status	
				Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
All ages	4,38,775*	2,26,061	2,12,714	1,19,636	90,048	97,105	98,452	8,340	23,020	882	1,086	98	108
Up to 9	1,30,734	66,240	64,494	66,240	64,494	—	—	—	—	—	—	—	—
10—14	49,285	26,264	23,021	24,466	18,518	1,733	4,425	19	30	19	29	27	19
15—19	35,866	18,590	17,276	14,153	5,039	4,327	12,022	55	91	41	111	14	13
20—24	37,316	18,190	19,126	7,973	1,141	9,933	17,552	164	248	109	170	11	15
25—29	36,568	18,525	18,043	3,281	340	14,767	16,992	310	522	158	175	9	14
30—34	30,831	15,981	14,850	1,239	154	14,183	13,577	418	954	134	154	7	11
35—39	25,456	13,599	11,857	625	88	12,365	10,317	499	1,322	104	122	6	8
40—44	22,852	12,082	10,770	472	67	10,792	8,364	724	2,226	89	106	5	7
45—49	18,053	9,733	8,320	320	42	8,540	5,801	803	2,400	66	72	4	5
50—54	17,105	9,128	7,977	294	37	7,642	4,247	1,130	3,628	58	60	4	5
55—59	9,829	5,281	4,548	154	19	4,272	2,210	821	2,285	32	31	2	3
60—64	11,236	5,705	5,531	165	23	4,259	1,626	1,246	3,851	32	28	3	3
65—69	4,850	2,472	2,378	70	10	1,746	646	640	1,709	15	12	1	1
70+	8,618	4,176	4,442	118	18	2,524	657	1,508	3,749	24	16	2	2
Age not stated	176	95	81	66	58	22	16	3	5	1	—	3	2

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*Excludes population of that part of Arunachal Pradesh where all-India census schedule was not canvassed.

TABLE 1.10

POPULATION OF MAJOR RELIGIOUS COMMUNITIES (1971)

State/Union Territory	Hindus	Muslims	Christians	Sikhs	Buddhists	Jains	Other religions and persuasions	Religion not stated
INDIA	45,32,92,086	6,14,17,934	1,42,23,382	1,03,78,797	38,12,325	26,04,646	21,84,556	36,083
States								
Andhra Pradesh	3,81,19,279	35,20,166	18,23,436	12,591	10,035	16,108	995	98
Assam	1,06,04,618	35,92,124	3,81,010	11,920	22,565	12,914	1	—
Bihar	4,70,31,801	75,94,173	6,58,717	61,520	4,806	25,185	9,76,997	170
Gujarat	2,38,35,471	22,49,055	1,09,341	18,233	5,469	4,51,578	18,781	9,547
Haryana	89,56,310	4,05,723	9,802	6,31,048	845	31,173	5	1,902
Himachal Pradesh	33,24,627	50,327	3,556	44,914	35,937	626	319	128
Jammu and Kashmir	14,04,292	30,40,129	7,182	1,05,873	57,956	1,150	8	42
Kerala	1,26,83,277	41,62,718	44,94,089	1,284	605	3,336	562	1,504
Madhya Pradesh	3,90,24,162	18,15,685	2,86,072	98,973	81,823	3,45,211	836	1,357
Maharashtra	4,13,07,287	42,33,023	7,17,174	1,01,762	32,64,223	7,03,664	80,023	5,079
Manipur	6,32,597	70,969	2,79,243	1,028	495	1,408	83,167	3,846
Meghalaya	1,87,140	26,347	4,75,267	1,262	1,878	268	3,18,168	1,369
Mysore	2,53,32,388	31,13,298	6,13,026	6,830	14,139	2,18,862	380	91
Nagaland	59,031	2,966	344,798	687	179	627	1,08,159	2
Orissa	2,11,21,056	3,26,507	3,78,888	10,204	8,462	6,521	91,859	1,118
Punjab	50,87,235	1,14,447	1,62,202	81,59,972	1,374	21,383	355	4,092
Rajasthan	2,30,93,895	17,78,275	30,202	3,41,182	3,642	5,13,548	4,339	723
Tamil Nadu	3,66,74,150	21,03,899	23,67,749	4,355	1,148	41,097	6,080	690
Tripura	13,93,689	103,962	15,713	318	42,285	375	—	—
Uttar Pradesh	7,39,97,597	1,36,76,533	1,31,810	3,69,672	39,639	1,24,728	423	742
West Bengal	3,46,11,864	90,64,338	2,51,752	35,084	1,21,504	32,203	1,94,126	1,140
Union Territories								
Andaman & Nicobar Islands	70,134	11,655	30,342	865	103	14	1,264	756
Arunachal Pradesh	1,02,832	842	3,684	1,255	61,400	39	2,96,674	785
Chandigarh	1,84,395	3,720	2,504	65,472	92	1,016	47	5
Dadra & Nagar Haveli	71,075	740	1,918	3	73	303	21	37
Delhi	34,07,835	2,63,019	43,720	2,91,123	8,720	50,513	527	241
Goa, Daman & Diu	5,50,482	32,250	2,72,509	885	260	556	269	560
L.M. & A. Islands	1,545	30,019	239	4	—	—	3	—
Mizoram	21,229	1,882	2,86,141	427	22,647	3	61	—
Pondicherry	4,00,793	29,143	41,296	51	21	237	107	59

The following Table shows the percentage of major religious communities to the total population and their percentage increase during the decennium 1961-71.

TABLE 1.11
PERCENTAGE OF MAJOR RELIGIOUS COMMUNITIES TO TOTAL POPULATION

Religious community	1961		1971		Percentage increase 1961-71
	Population	Percentage to total population	Population	Percentage to total population	
Hindus	36,63,93,102*	83.51	45,32,92,086	82.72	23.69
Muslims	4,69,38,584*	10.70	6,14,17,934	11.21	30.85
Christians	1,07,23,560*	2.44	1,42,23,382	2.60	32.60
Sikhs	78,45,098*	1.79	1,03,78,797	1.89	32.28
Buddhists	32,00,333*	0.73	38,12,325	0.70	17.20
Jains	20,27,248*	0.46	26,04,646	0.47	28.48
Others**	16,08,099*	0.37	22,20,639	0.41	19.59
TOTAL	43,90,72,582	100.00	54,79,49,809	100.00	24.80

* The 1961 figures do not contain the figures of Arunachal Pradesh as the all-India census schedule was not canvassed throughout that Pradesh then.

** Includes figures for 'Religion not stated'.

LANGUAGES

The 1961 census enumerated a total of 1,652 mother-tongues which have been grouped into languages/dialects as follows:

TABLE 1.12
POPULATION ACCORDING TO MOTHER-TONGUES

Languages	Number	Persons speaking
I. Languages (inclusive of 380 mother-tongues grouped under them) specified in Schedule VIII of the Constitution	14	38,23,30,498
II.††Indian languages (inclusive of 241 mother-tongues grouped under them) each having a strength of 5,00,000 and over, other than those specified in Schedule VIII of the Constitution	17	5,00,53,753
III.††Indian languages (69 mother-tongues grouped under 17 languages and 2 mother-tongues without grouping) having a strength of 1,00,000 to 4,99,999 speakers each other than those specified in Schedule VIII of the Constitution	19	42,21,291
IV.††Indian languages not covered above (total number of mother-tongues 857; of them 244 are grouped under 60 languages, other mother-tongues are without any grouping)	673	18,53,728
V. Non-Indian languages	103	3,15,459
TOTAL	826	43,87,74,729@

†† The mother-tongues in II, III and IV include 304 tribal mother-tongues with 1,41,32,499 speakers.

@ Excludes population (2,97,853) of that portion of Arunachal Pradesh where all-India census schedule was not canvassed.

The number of persons speaking languages of the first three categories in Table 1·12 is shown in the following Table.

TABLE 1.13
LANGUAGES/DIALECTS AND NUMBER OF PERSONS SPEAKING

Language	Persons speaking	Language	Persons speaking
1. *Languages (inclusive of mother-tongues grouped under them) specified in Schedule VIII of the Constitution:*			
Assamese	68,03,460	Marathi	3,32,86,710
Bengali	3,38,88,279	Oriya	1,57,19,387
Gujarati	2,03,04,461	Punjabi	1,09,50,660
Hindi	13,34,33,207	Sanskrit	2,544
Kannada	1,74,15,826	Tamil	3,05,62,671
Kashmiri	19,56,114	Telugu	3,76,68,106
Malayalam	1,70,15,674	Urdu	2,33,23,399
II. *Languages (inclusive of mother-tongues grouped under them) having strength of* 5,00,000 *and over, but not included in* (*I*) *above.*			
Bihari	1,68,06,691	Nepali	9,46,743
Rajasthani	1,49,32,461	Pahari—unspecified	10,04,371
Santhali	32,47,058	Tulu	9,35,108
Bhili	24,39,611	Garhwali	8,09,965
Gondi	15,01,410	Mundari	7,37,037
Sindhi	13,71,927	Ho	6,48,359
Konkani	13,52,363	Manipuri/Meithei	6,36,430
Kurukh/Oraon	11,41,804	Kui	5,12,161
Kumauni	10,30,254		
III. *Languages (inclusive of mother-tongues grouped under them) having strength of* 1,00,000 *to* 4,99,999 *but not included in I and II above.*			
Khandeshi	4,28,126	Kharia	1,77,159
Khasi	3,64,063	Khond/Kondh	1,68,027
Bodo/Boro	3,61,801	Mikir	1,54,893
Garo	3,07,040	Bhumij	1,42,003
Tripuri	2,99,643	Koya	1,40,777
Savara	2,65,721	Miri	1,36,598
Munda—unspecified	2,61,653	Hindustani	1,23,199
Mandeali	2,27,352	Sirmauri	1,11,391
Lushai/Mizo	2,22,202	Parji	1,09,401
Korku	2,02,242		

RURAL AND URBAN POPULATION

Of the 54·79 crores, who constituted the 1971 population of India, 43.89 crores or 80 per cent live in villages and 10·91 crores or 20 per cent in cities and towns. There has been, between 1921 and 1971, a slow but steady shift towards urbanisation as shown below:

TABLE 1.14
RURAL AND URBAN POPULATION

Percentage of total population	1921	1931	1941	1951	1961	1971
Rural	88.8	88.0	86.1	82.7	82.0	80.1
Urban	11.2	12.0	13.9	17.3	18.0	19.9

According to the 1971 census, there are 2,641 towns/town agglomerations. Of these, 147 have a population of over a lakh each (see map). Their distribution, according to population range, is indicated in Table 1·15. The final figure of inhabited villages as per 1971 census has not yet been determined. However, their distribution, according to population range in 1961, is given in Table 1.16.

TABLE 1.15

DISTRIBUTION OF TOWNS/TOWN AGGLOMERATIONS* ACCORDING TO POPULATION (1971)

State/Union Territory	1,00,000 and over	50,000 to 99,999	20,000 to 49,999	10,000 to 19,999	5,000 to 9,999	Less than 5,000	Total
INDIA	147	185	582	874	680	173	2,641
States							
Andhra Pradesh	13	17	59	76	38	4	207
Assam	1	5	9	24	22	8	69
Bihar	11	9	42	57	35	7	161
Gujarat	8	17	37	66	67	5	200
Haryana	2	9	14	15	20	5	65
Himachal Pradesh	..	1	1	5	7	21	35
Jammu & Kashmir	2	..	3	3	15	20	43
Kerala	5	7	40	25	9	2	88
Madhya Pradesh	11	11	41	72	91	7	233
Maharashtra	18	16	61	90	58	14	257
Manipur	1	..	..	..	4	3	8
Meghalaya	1	..	..	1	1	..	3
Mysore	12	9	38	99	46	26	230
Nagaland	..	..	1	2	..	..	3
Orissa	5	1	19	21	30	2	78
Punjab	4	8	22	32	30	10	106
Rajasthan	7	7	31	64	38	4	151
Tamil Nadu	16	27	57	86	44	11	241
Tripura	1	..	..	4	1	..	6
Uttar Pradesh	22	20	67	91	80	13	293
West Bengal	4	20	34	40	36	3	137
Union Territories							
Andaman & Nicobar Islands	..	..	1	..	..	..	1
Arunachal Pradesh	..	..	..	..	1	3	4
Chandigarh	1	..	..	..	..	..	1
Dadra & Nagar Haveli	..	..	..	..	..	..	..
Delhi	1	..	..	..	..	..	1
Goa, Daman & Diu	..	1	3	1	4	4	13
L.M. & A. Islands	..	..	..	..	..	..	..
Mizoram	..	..	1	..	1	..	2
Pondicherry	1	..	1	..	2	1	5

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* In certain clusters the urban area is not really limited only to the notified boundary of any one or two places but embraces satellite towns and cities and industrial towns or settlements close to this urban area, being outgrowths of such towns/cities. Such well-formed clusters are treated urban agglomerations, the determinant being a continuous urban spread including the outgrowth(s).

TABLE 1.16

Distribution of Villages According to Population (1961)

State/Union Territory	10,000 and over	5,000 to 9,999	2,000 to 4,999	1,000 to 1,999	500 to 999	Less than 500	Total
INDIA	776	3,421	26,565	65,377	1,19,086	3,51,650	5,66,878*
States							
Andhra Pradesh	28	458	3,918	6,050	5,834	10,796	27,084
Assam	..	12	389	1,923	4,701	13,540	20,565
Bihar	44	441	3,339	7,635	13,784	42,422	67,665
Gujarat	7	141	1,332	3,301	5,299	8,504	18,584
Haryana	2	70	662	1,307	1,872	2,756	6,669
Himachal Pradesh	9	28	131	264	498	12,130	13,060
Jammu & Kashmir ..	..	5	114	528	1,320	4,592	6,559
Kerala	510	587	395	57	18	6	1,573
Madhya Pradesh	..	28	787	3,811	12,795	52,993	70,414
Maharashtra	29	305	2,215	5,958	10,235	17,109	35,851
Manipur	..	2	51	126	200	1,487	1,866
Meghalaya	..	..	..	26	146	4,235	4,407
Mysore	..	172	1,432	3,723	6,481	14,569	26,377
Nagaland	..	..	11	65	157	581	814
Orissa	..	16	452	2,513	7,334	36,151	46,466
Punjab	1	44	648	1,940	3,221	6,093	11,947
Rajasthan	..	94	1,003	2,936	6,596	21,612	32,241
Tamil Nadu	96	449	3,539	4,771	3,216	2,053	14,124
Tripura	..	..	31	142	366	4,393	4,932
Uttar Pradesh	23	308	3,795	12,801	26,015	69,682	1,12,624
West Bengal	25	244	2,156	5,224	8,514	22,291	38,454**
Union Territories							
Andaman & Nicobar Islands ..	..	..	..	2	20	377	399
Arunachal Pradesh ..	..	1	8	23	62	2,354	2,451*
Chandigarh	..	..	1	3	12	15	31
Dadra & Nagar Haveli ..	..	..	3	18	23	28	72
Delhi	..	..	42	59	99	76	276
Goa, Daman & Diu ..	2	13	83	80	46	21	245
L.M. & A. Islands	..	..	6	2	1	1	10
Mizoram	..	..	1	27	132	570	730
Pondicherry	..	3	21	62	89	213	388

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* Includes 3 villages for which details are not available.

** Does not include 11 villages for which separate population figures are not available.

सत्यमेव जयते

2 NATIONAL SYMBOLS

NATIONAL FLAG

The National Flag is a horizontal tricolour of deep saffron (*Kesari*) at the top, white in the middle and dark green at the bottom in equal proportion. The ratio of the width of the Flag to its length is two to three. In the centre of the white band is a wheel, in navy blue, which represents the *Charkha.* Its design is that of the wheel (*Chakra*) which appears on the abacus of the Sarnath Lion Capital of Asoka. Its diameter approximates to the width of the white band and it has 24 spokes.

The National Flag was adopted by the Constituent Assembly of India on 22 July 1947, and was presented to the nation, on behalf of the women of India, at the midnight session of the Assembly on 14 August 1947.

To ensure proper use and display of the Flag, the Government of India have issued a pamphlet entitled *Flag Code — India.*

STATE EMBLEM

The State Emblem of India is an adaptation from the Sarnath Lion Capital of Asoka as preserved in the Sarnath museum. In the original there are four lions, standing back to back, mounted on an abacus with a frieze carrying sculptures in high relief of an elephant, a galloping horse, a bull and a lion separated by intervening wheels (*Chakras*) over a bell-shaped lotus. Carved out of a single block of polished sandstone, the Capital was crowned by the Wheel of the Law (*Dharma Chakra*).

In the State Emblem adopted by the Government of India on 26 January 1950, only three lions are visible, the fourth being hidden from view. The wheel appears in relief in the centre of the abacus with a bull on the right and a horse on the left and the outlines of the other wheels on the extreme right and left. The bell-shaped lotus has been omitted. The words "*Satyameva jayate*", from the *Mundaka Upanishad* meaning "Truth alone triumphs", are inscribed below the Emblem in the Devanagari script.

NATIONAL ANTHEM

Rabindranath Tagore's song *Jana-gana-mana* was adopted as the National Anthem of India on 24 January 1950. It was first sung on 27 December 1911 at the Calcutta session of the Indian National Congress. *Bharat Vidhata* was the title under which the song was first published in the January 1912 issue of *Tattvabodhini Patrika*, of which Tagore was the editor. The poet translated the song into English in 1919 under the title *Morning Song of India.* The complete song consists of five stanzas. The first stanza, which has been adopted by the Defence Forces and is usually sung on ceremonial occasions, reads:

Jana-gana-mana-adhinayaka, Jaya he
Bharata-bhagya-vidhata.
Punjaba-Sindhu-Gujarata-Maratha-
  Dravida-Utkala-Banga
Vindhya-Himachala-Yamuna-Ganga
  Uchchhala-Jaladhi-taranga
Tava subha name jage,
Tava subha asisa mage,
Gahe tava jaya-gatha.

Jana-gana-mangala-dayaka, jaya he
Bharata-bhagya-vidhata
Jaya he, jaya he, jaya he,
Jaya jaya jaya, jaya he.

The above is the full version of the National Anthem as adopted and its playing time is about 52 seconds. A short version consisting of the first and last lines of this stanza (playing time approximately 20 seconds) is also played on certain occasions.

The following is Tagore's English rendering of the stanza:

Thou art the ruler of the minds of all people,
dispenser of India's destiny.
Thy name rouses the hearts of the Punjab, Sind,
Gujrat and Maratha, of the Dravid and Orissa and Bengal;
it echoes in the hills of the Vindhyas and Himalayas,
mingles in the music of the Jamuna and Ganges
and is chanted by the waves of the Indian Sea.
They pray for thy blessings and sing thy praise.
The saving of all people waits in thy hand,
thou dispenser of India's destiny.
Victory, Victory, Victory to thee.

NATIONAL SONG

At the same time as the National Anthem was adopted, it was decided that Bankim Chandra Chatterjee's *Vande Mataram*, which was a source of inspiration to the people in their struggle for freedom, shall have an equal status with *Jana-gana-mana*. *Vande Mataram* occurs in Bankim Chandra Chatterjee's novel *Ananda Math*, published in 1882. The first political occasion on which it was sung was the 1896 session of the Indian National Congress. The following is the text of its first stanza:

Vande Mataram!
Sujalam, suphalam, malayaja-shitalam,
Shasyashyamalam, Mataram!
Shubhrajyotsna-pulakitayaminim,
Phullakusumita-drumadala-shobhinim,
Suhasinim sumadhura-bhasinim,
Sukhadam, varadam, Mataram!

The English translation of the stanza by Sri Aurobindo is :

I bow to thee, Mother,
richly-watered, richly-fruited,
cool with the winds of the south,
dark with the crops of the harvest,
the Mother!
Her nights rejoicing in the glory of the moonlight,
her lands clothed beautifully with her trees in flowering bloom,
sweet of laughter, sweet of speech,
the Mother, giver of boons, giver of bliss!

NATIONAL CALENDAR

A uniform National Calendar based on the Saka era with Chaitra as its first month and a normal year of 365 days was adopted from 22 March 1957 along with the Gregorian Calendar for the following official purposes: (i) The Gazette of India, (ii) news broadcasts by All India Radio, (iii) calendars issued by the Government of India, and (iv) Government communications addressed to members of the public.

The dates of the reformed Indian Calendar have a permanent correspondence with the dates of the Gregorian Calendar; Chaitra 1 falling on 22 March normally and on 21 March in a leap year.

3 GOVERNMENT

The Constitution of India was adopted by the Constituent Assembly on 26 November 1949 and came into force on 26 January 1950.

The preamble to the Constitution embodies the resolve of the people of India to secure for all citizens: *Justice*, social, economic and political; *Liberty* of thought, expression, belief, faith and worship; *Equality* of status and of opportunity; and to promote among them all *Fraternity* assuring the dignity of the individual and the unity of the nation.

THE UNION AND ITS TERRITORY

India is a Union of States and its territory comprises the territories of the States of Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mysore, Nagaland, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal and the Union Territories of Andaman and Nicobar Islands, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Daman and Diu, Laccadive, Minicoy and Amindivi Islands, Mizoram and Pondicherry.

CITIZENSHIP

The Constitution provides for a single and uniform citizenship for the whole of India. Every person who was at the commencement of the Constitution (26 January 1950) domiciled in India and (a) was born in India or (b) either of whose parents was born in India or (c) who had been ordinarily resident in the territory of India for not less than five years immediately preceding that date became a citizen of India. Special provision was made for migrants from Pakistan and for persons of Indian origin resident abroad. The Citizenship Act, 1955, which supplements the provisions of the Constitution, provides for the acquisition of citizenship by birth, descent, registration and naturalisation. The Act also provides for loss of citizenship by renunciation, termination and deprivation.

FUNDAMENTAL RIGHTS

The Indian Constitution offers all citizens, individually and collectively, basic freedoms and conditions which alone make life significant and productive. These are guaranteed in the Constitution in the form of seven broad categories of fundamental rights which are justiciable. These are: (i) the right to equality including equality before the law, prohibition of discrimination on grounds of religion, race, caste, sex, or place of birth, and equality of opportunity in matter of employment; (ii) the right to freedom of speech and expression, assembly, association or union, movement, residence, acquisition and disposal of property and the right to practise any profession or occupation subject to the security of the State, friendly relations with foreign countries, public order, decency and morality; (iii) the right against exploitation, prohibiting all forms of forced labour, child labour and traffic in human beings; (iv) the right to freedom of conscience and free profession, practice and propagation of religion; (v) the right of minorities to conserve their culture, language and script and to receive education and establish and administer educational institutions of their choice; (vi) the right to property, subject to the right of the State to compulsory acquisition for public purpose and by authority of a law which also fixes the amount to be paid or lays down the principles to determine the amount; and (vii) the right to constitutional remedies for the enforcement of fundamental rights.

Two important Constitutional amendments relating to fundamental rights were approved by Parliament in 1971. The first, the Constitution (Twenty-fourth Amendment) Act, which received the assent of the President on 5 November 1971, became necessary following the decision of the Supreme Court in the Golak Nath case in 1967 wherein the Court reversed by a narrow majority its own earlier decision upholding the power of Parliament to amend all parts of the Constitution including Part III relating to fundamental rights. The new Amendment restored to Parliament the power to amend any provision of the Constitution including the provisions of Part III relating to fundamental rights.

The second, the Constitution (Twenty-fifth Amendment) Act, which received the assent of the President on 20 April 1972, besides other changes, substituted clause 2 of article 31 of the Constitution with a new clause 2 wherein the word "compensation" has been substituted by the word "amount". The new clause also provides that the amount paid for property compulsorily acquired may be given otherwise than in cash. (For details, see chapter "Laws of Parliament")

DIRECTIVE PRINCIPLES OF STATE POLICY

The Directive Principles of State Policy, though not justiciable, are regarded as "fundamental in the governance of the country". These lay down that the State shall strive "to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of national life". These principles further require the State to direct its policy in such a manner as to secure the right of all men and women to an adequate means of livelihood, equal pay for equal work, and within the limits of its economic capacity and development, to make effective provision for securing the right to work, education and public assistance in the event of unemployment, old age, sickness and disablement or other cases of undeserved want. The State is also required to secure to workers humane conditions of work, a decent standard of life and full enjoyment of leisure and social and cultural opportunities.

In the economic sphere, the State is to direct its policy in such a manner as to secure the distribution of ownership and control of the material resources of the community to subserve the common good and to ensure that the operation of the economic system does not result in the concentration of wealth and means of production to common detriment.

Some of the other important directives relate to the provision of free and compulsory education for all children up to the age of fourteen; organisation of village panchayats; separation of judiciary from the executive; promulgation of a uniform civil code for the whole country; protection of national monuments; promotion of educational and economic interests of scheduled castes, scheduled tribes and other weaker sections; and the promotion of international peace and security, just and honourable relations between nations, respect for international law and treaty obligations and settlement of international disputes by arbitration.

The Directive Principles have animated the policy of the Government in every field as will be seen from some of the succeeding chapters, particularly those dealing with education, health and social welfare.

THE UNION

EXECUTIVE

The Union Executive consists of the President, the Vice-President and the Council of Ministers with the Prime Minister at its head.

President

The President is elected by an electoral college consisting of the elected members of both Houses of Parliament and of the Legislative Assemblies of the States in accordance with the system of proportional representation by means of the single transferable vote. The President must be a citizen of India, not less than 35 years of age, and eligible for election as a member of the House of the People. His term of office is five years and he is eligible for re-election. Before entering upon his office the President takes an oath to preserve, protect and defend the Constitution and the law. His removal from office for any violation of the Constitution is to be in accordance with the procedure prescribed in article 61. In his capacity as the head of State, the President is empowered to make appointments; summon, prorogue, address, send messages to Parliament and dissolve the House of the People; issue ordinances during recess of Parliament, make recommendations for introducing or moving money bills and give assent to bills; grant pardons, reprieves, respites or remissions of punishment and suspend, remit or commute sentences in certain cases. The Supreme Command of the Defence Forces is also vested in the President and the exercise thereof is regulated by law. The executive power of the Union vested in him is exercised by him either directly or through officers of the Government in accordance with the Constitution.

The President can proclaim emergency in the country if he is satisfied that a grave emergency exists whereby the security of India or any part of the territory thereof is threatened.

Vice-President

The Vice-President is elected by an electoral college consisting of the members of both Houses of Parliament in accordance with the system of proportional representation by means of the single transferable vote. He must be a citizen of India, not less than 35 years of age, and eligible for election as a member of the Council of States. His term of office is five years. Though there is no specific provision in the Constitution making the Vice-President eligible for re-election, a sitting Vice-President is eligible for re-election.

The Vice-President is the *ex-officio* Chairman of the Council of States and acts as President when the latter is unable to discharge his functions due to illness, absence or any other cause, or till the election of a new President when a vacancy is caused by the death, resignation or removal of the President. While so acting he exercises all the powers and discharges all the functions vested in the President and ceases to perform the functions of the Chairman of the Council of States.

Council of Ministers

There is a Council of Ministers headed by the Prime Minister to aid and advise the President in the exercise of his functions. The Prime Minister is appointed by the President who also appoints other Ministers on the advice of the Prime Minister. Although the Council holds office during the pleasure of the President, it acts on the principle of joint responsibility. It is the duty of the Prime Minister to communicate to the President all decisions of the Council of Ministers relating to the administration of the affairs of the Union and proposals for legislation and information relating to them and, if the President so requires, submit for the consideration of the Council of Ministers any matter on which a decision has been taken by a Minister but which has not been considered by the Council.

The Council of Ministers comprises Ministers, who are members of the Cabinet, Ministers of State, who are not members of the Cabinet, and Deputy Ministers.

The personnel of the Government on 7 February 1973 was as follows:

President : V.V. Giri

Vice-President : G.S. Pathak

	Members of Cabinet	*Portfolios*
1.	Smt. Indira Gandhi	Prime Minister, Atomic Energy, Electronics, Information and Broadcasting, and Space
2.	Fakhruddin Ali Ahmed	Agriculture
3.	Y.B. Chavan	Finance
4.	Jagjivan Ram	Defence
5.	Swaran Singh	External Affairs
6.	D.P. Dhar	Planning
7.	Uma Shankar Dikshit	Home Affairs
8.	H.R. Gokhale	Law and Justice and Company Affairs
9.	S. Mohan Kumaramangalam	Steel and Mines
10.	T.A. Pai	Heavy Industry
11.	Raj Bahadur	Shipping and Transport
12.	Karan Singh	Tourism and Civil Aviation
13.	C. Subramaniam	Industrial Development and Science and Technology
14.	Bhola Paswan Shastri	Works and Housing
15.	K. Raghuramaiah	Parliamentary Affairs
16.	Dev Kanta Borooah	Petroleum and Chemicals
17.	L.N. Mishra	Railways
	Ministers of State	
18.	H.N. Bahuguna*	Communications
19.	R.K. Khadilkar*	Health and Family Planning
20.	S. Nurul Hasan*	Education and Social Welfare and Culture
21.	Shah Nawaz Khan*	Supply
22.	Raghunatha Reddy*	Labour and Rehabilitation
23.	D.P. Chattopadhyaya*	Commerce
24.	K.L. Rao*	Irrigation and Power
25.	Niti Raj Singh Chaudhary	Law, Justice and Company Affairs
26.	D.R. Chavan	Law, Justice and Company Affairs
27.	Mohan Dharia	Planning
28.	K.R. Ganesh	Finance
29.	I.K. Gujral	Information and Broadcasting
30.	Smt. Sarojini Mahishi	Tourism and Civil Aviation
31.	Om Mehta	Parliamentary Affairs and Works and Housing
32.	R.N. Mirdha	Home Affairs and Personnel
33.	K.C. Pant**	Home Affairs
34.	Annasaheb P. Shinde	Agriculture
35.	Sher Singh	Agriculture
36.	V.C. Shukla	Defence Production
37.	Surendra Pal Singh	External Affairs
38.	M.B. Rana	Shipping and Transport

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*In charge of Ministries/Departments.

**Will also assist the Prime Minister in parliamentary work relating to the Departments of Atomic Energy, Electronics and Space.

Deputy Ministers

39.	F.H. Mohsin	Home Affairs
40.	Bedabrata Barua	Law, Justice and Company Affairs
41.	A.C. George	Commerce
42.	A.K. Kisku	Health and Family Planning
43.	Jagannath Pahadia	Communications
44.	Mohd. Shafi Qureshi	Railways
45.	Smt. Sushila Rohatgi	Finance
46.	D.P. Yadav	Education and Social Welfare and Culture
47.	B. Shankaranand	Parliamentary Affairs
48.	Kedar Nath Singh	Parliamentary Affairs
49.	Siddheshwar Prasad	Heavy Industry
50.	Dalbir Singh	Petroleum and Chemicals
51.	Dharam Bir Sinha	Information and Broadcasting
52.	Balgovind Verma	Irrigation and Power
53.	Arvind Netam	Education and Social Welfare and Culture
54.	J.B. Patnaik	Defence
55.	P.K. Mukherjee	Industrial Development
56.	Z.R. Ansari	Industrial Development
57.	Subodh Chandra Hansda	Steel and Mines
58.	Sukhdev Prasad	Steel and Mines
59.	Kondajji Basappa	Health and Family Planning
60.	G. Venkat Swamy	Labour and Rehabilitation

Administrative Set-up

Rules of Business have been framed under the Constitution to regulate the allocation of the business of Government among Ministers and its more convenient transaction.

The allocation is made by the President on the advice of the Prime Minister by specifying the items of business allotted to each Ministry and by assigning a Ministry or a part of a Ministry or more than one Ministry to the charge of a Minister. A Cabinet Minister in charge of one or more Ministries and/or parts of Ministries is often assisted by a Minister or Ministers of State or one or more Deputy Ministers or both. The Ministers of State and Deputy Ministers perform such functions as may be assigned to them in relation to the business allotted to the Ministry.

A Ministry is responsible for the formulation of the policy of Government within its sphere of responsibility as well as for the execution and review of that policy.

A Secretary to the Government of India is the administrative head of a Ministry. He is the principal adviser of the Minister on all matters of policy and administration within his Ministry.

Where the volume of work in a Ministry exceeds the manageable charge of a Secretary, one or more wings may be established with one or more Special Secretaries, Additional Secretaries or Joint Secretaries in charge of each wing.

Cabinet Secretariat

The Cabinet Secretariat consists of the Department of Personnel, the Department of Statistics and the Department of Cabinet Affairs. The Department of Cabinet Affairs has an important co-ordinating role in the process of decision-making at the highest level and operates under the direction of the Prime Minister. Its functions include the submission of cases to the Cabinet and its committees, the preparation of the records of decisions taken and follow-up action on their implementation. It also services the committees of Secretaries which meet periodically under the chairmanship of the Cabinet Secretary to consider and advise on problems requiring inter-ministerial consultation and co-ordination. It formulates the Rules of Business and allocates the business of the Government of India to the Ministries and Departments under the direction of the Prime Minister and with the approval of the President. The Department obtains and circulates to the President, the Vice-President, the Council of Ministers and other important functionaries, periodical summaries and notes on important developments in each Ministry.

PUBLIC SERVICES

For recruitment to civil services and posts under the Union Government, an independent body known as the Union Public Service Commission has been set up. The Chairman and members of the Commission are appointed by the President.

To ensure the independence of the Commission, the Constitution debars its Chairman from further employment either under the Government of India or the Government of a State. A member other than the Chairman of the Commission is, however, eligible for appointment as Chairman of that Commission or of a State Public Service Commission, but for no other Government employment.

The personnel of the Commission on 1 June 1972 was as follows:

Chairman:
R.C.S. Sarkar

Members:
Hari Sharma
A.R. Kidwai
Maj.-Gen. P.C. Gupta
M.L. Shahare
H.N. Ramachandra Rao
A.K. Dhan
R.N. Muttoo

OFFICIAL LANGUAGE

In accordance with the provisions of the Constitution, Hindi in Devanagari script is the official language of the Union and the international form of Indian numerals has been adopted for use for official purposes. However, as provided in the Official Languages Act, 1963, as amended, English language will continue to be used for all the official purposes for which it was being used before 26 January 1965 and also for the transaction of business in Parliament. Further, the English language shall be used for purposes of communication between the Union and a State which has not adopted Hindi as its official language. Where Hindi is used for purposes of communication between one State which has adopted Hindi as its official language and another which has not adopted Hindi as its official language, such communication shall be accompanied by a translation of the same in English.

LEGISLATURE

India is a Sovereign Democratic Republic with a Parliamentary form of government elected on universal adult franchise. Sovereignty ultimately rests with the people, for the executive authority is accountable for all its decisions and actions to the people through their elected representatives in the legislature.

The legislature of the Union, which is called Parliament, consists of the President and two Houses known as the Council of States (Rajya Sabha) and the House of the People (Lok Sabha). Parliament shall meet within six months of its previous sitting. A joint sitting of the two Houses of Parliament can also be held in certain cases.

Council of States (Rajya Sabha)

The Constitution of India provides that the Council of States shall consist of not more than 250 members of whom 12 having special knowledge or practical experience in literature, science, art and social service shall be nominated by the President and the rest shall be the representatives of the States and the Union Territories. The elections to the Council are indirect; those representing the States are elected by the elected members of the Legislative Assemblies of the States concerned in accordance with the system of proportional representation by means of the single transferable vote and those representing the Union Territories are chosen in such manner as Parliament may by law prescribe. The Council is not subject to dissolution, one-third of its members retiring on the expiration of every second year.

The membership of the Council, as constituted at present, is 243. Of these, 231 represent the States and Union Territories, of whom 230 are indirectly elected and one, representing the Union Territory of Arunachal Pradesh, is nominated by the President. Twelve members, being specialists in the fields of literature, science, art and social service, are nominated by the President.

House of the People (Lok Sabha)

The House of the People (Lok Sabha), as constituted in March 1971, consisted of 521 members. The membership increased to 524 after the coming into force of the North-Eastern Areas (Reorganization) Act, 1971. Of these, 506 are directly elected from 21 States and 15 from eight Union Territories. One member is nominated by the President to represent the Union Territory of Arunachal Pradesh and two members are nominated by him to represent the Anglo-Indians.

The number of seats for each State is so allocated that the ratio between the number and the population of the State is, as far as practicable, the same for all the States. Unless dissolved sooner, the term of the House is five years from the date appointed for its first meeting. During an emergency its life can be prolonged for a period not exceeding one year at a time and not extending in any case beyond a period of six months after the proclamation of emergency has ceased to operate.

Qualifications for Membership of Parliament

In order to be chosen a member of Parliament, a person must be a citizen of India; must be not less than 30 years of age in the case of the Rajya Sabha and not less than 25 years of age in the case of the Lok Sabha. Additional qualifications may be prescribed by Parliament by law.

Parliamentary Privileges

The Constitution provides for freedom of speech in Parliament. No member of Parliament can be held liable to any proceedings in any court in respect of anything said or any vote given by him in Parliament or any Committee thereof. Other powers, privileges and immunities of the members are the same as those enjoyed by the members of the House of Commons of the British Parliament at the commencement of the Indian Constitution.

The names of members of the two Houses as on 24 June 1972 are given below:

COUNCIL OF STATES (RAJYA SABHA)

Chairman: G. S. Pathak
Deputy Chairman: Godey Murahari

Andhra Pradesh (18)

1. Janardhana Reddy
2. A.S. Chowdhri
3. Nuthalapati Joseph
4. Papi Reddi
5. V.B. Raju
6. Kota Punnaiah
7. Venigalla Satyanarayana
8. M. Anandam
9. Qasim Ali Abid
10. Chandramouli Jagarlamudi
11. Gaddam Narayana Reddy
12. M. Srinivasa Reddy
13. K.L.N. Prasad
14. Smt. Rathnabai Sreenivasa Rao
15. Katragadda Srinivasa Rao
16. K.V. Raghunatha Reddy
17. Vacant
18. Sanda Narayanappa

Assam (7)

19. Nripati Ranjan Choudhury
20. B.C. Bhagwati
21. N.C. Buragohain
22. Golap Barbora
23. Bipinpal Das
24. Emonsing M. Sangma
25. Vacant

Bihar (22)

26. Suraj Prasad
27. Chaudhary A. Mohammad
28. D.P. Singh
29. Balkrishna Gupta
30. Bindeshwari Prasad Singh
31. Gunanand Thakur
32. Shyamlal Gupta
33. Bhupendra Narayan Mandal
34. Mahabir Dass
35. Yogendra Sharma
36. Shishir Kumar
37. Dharam Chand Jain
38. Jagdambi Prasad Yadav
39. B.R. Munda
40. Smt. Jahanara Jaipal Singh
41. Bhola Prasad
42. Bhola Paswan Shastri
43. Sitaram Kesri
44. Rajendra Kumar Poddar
45. Sitaram Singh
46. Awadheshwar Prasad Sinha
47. Smt. Pratibha Singh

Gujarat (11)

48. Shamprasad Rupshanker Vasavada
49. Smt. Sumitra G. Kulkarni
50. D.K. Patel
51. Dahyabhai V. Patel
52. Himmat Singh
53. U.N. Mahida
54. I.K. Kalania
55. Jaisukhlal Hathi
56. H.M. Trivedi
57. Tribhovandas Kisibhai Patel
58. Manubhai Shah

Haryana (5)

59. D.D. Puri
60. Ranbir Singh
61. Bhagwat Dayal
62. Krishan Kant
63. Sultan Singh

Himachal Pradesh (3)

64. Roshan Lal
65. Jagan Nath Bhardwaj
66. Smt. Satyavati Dang

Jammu and Kashmir (4)

67. Om Mehta
68. Gulam Nabi Untoo
69. Syed Hussain
70. Tirath Ram Amla

Kerala (9)

71. Hamid Ali Schamnad
72. Balachandra Menon
73. Narayana Kalliyana Krishnan
74. K.P. Subramania Menon
75. G. Gopinathan Nair
76. B.V. Abdulla Koya
77. K. Mathew Kurian
78. K. Chandrasekharan
79. S. Kumaran

Madhya Pradesh (16)

80. S.C. Angre
81. Syed Ahmad
82. Bhawaniprasad Tiwary
83. Smt. Vidyawati Chaturvedi
84. Narayan Prasad Chaudhuri
85. M.B. Singh
86. Balram Das
87. Vijaya Bhushan Deosharan
88. N.K. Shejwalkar
89. Ram Sahai
90. Smt. Shyamkumari Devi
91. Chakrapani Shukla
92. Sawaisingh Sisodia
93. Shankarlal Tiwari
94. Nand Kishore Bhatt
95. V.K. Sakhalecha

Maharashtra (19)

96. Narayan Ganesh Goray
97. Kum. Sarojini Krishnarao Babar
98. Bidesh Tukaram Kulkarni
99. Babubhai M. Chinai
100. Kum. Saroj P. Khaprade
101. Tryambak Gopal Deshmukh
102. Sikandar Ali Wajd
103. Vithal Gadgil
104. N.H. Kumbhare
105. Arvind Ganesh Kulkarni
106. Pandharinath Sitaramji Patil
107. Kum. Sushila Mansukhlal Desai
108. Gulabrao Raghunathrao Patil
109. Shankarrao Bajirao Bobdey
110. Jayant Shridhar Tilak
111. Shriniwas Ganesh Sardesai
112. D.Y. Pawar
113. V. R. Parashar
114. M.R. Vyas

Manipur (1)

115. Salam Tombi

Meghalaya (1)

116. Showaless K. Shilla

Mysore (12)

117. Veerendra Patil
118. Malappa Lingappa Kollur
119. K. Nagappa Alva
120. Mulka Govinda Reddy
121. Patil Puttapa
122. T.A. Pai
123. B.T. Kemparaj

124. U.K. Lakshmana Gowda
125. Maqsood Ali Khan
126. K.S. Malle Gowda
127. B. Nagaraja Murthy
128. H.S. Narasiah

Nagaland (1)

129. Melhupra Vero

Orissa (10)

130. Brahmananda Panda
131. Binoy Kumar Mahanti
132. C.P. Majhi
133. Bira Kesari Deo
134. K.P. Singh Deo
135. Krishna Chandra Panda
136. Smt. Nandini Satpathy
137. Lokanath Misra
138. Sundarmani Patel
139. Smt. Saraswati Pradhan

Punjab (7)

140. Mohan Singh
141. Rattan Lal Jain
142. Bhupindar Singh
143. Gurcharan Singh Tohra
144. Smt. Sita Devi
145. Inder Kumar Gujral
146. Gurmukh Singh Musafir

Rajasthan (10)

147. M.K. Mohta
148. Smt. Lakshmi Kumari Chundawat
149. Jagdish Prasad Mathur
150. Jamna Lal Berwa
151. Smt. Narayanidevi Manaklal Varma
152. Mohammed Usman Arif
153. Ram Niwas Mirdha
154. Kumbha Ram Arya
155. Bal Krishna Kaul
156. Ganesh Lal Mali

Tamil Nadu (18)

157. A.K. Refaye
158. T.K. Srinivasan
159. K.A. Krishnaswamy
160. Kanchi Kalyanasundaram
161. G.A. Appan
162. M. Kamalanathan
163. M. Ruthnaswamy
164. S.S. Mariswamy
165. M.R. Venkataraman
166. M.C. Balan
167. S.S. Rajendran
168. T.V. Anandan
169. M.S. Abdul Khader
170. V.V. Swaminathan
171. A.K.A. Abdul Samad
172. K.S. Ramaswamy
173. Thillai Villalan
174. S.A. Khaja Mohideen

Tripura (1)

175. Triguna Sen

Uttar Pradesh (34)

176. Banarsi Das
177. Dattopant Thengari
178. Ganeshi Lal Chaudhary
179. Sukhdev Prasad
180. Ajit Prasad Jain
181. C.D. Pande
182. Pitamber Das
183. Yashpal Kapur
184. Nawal Kishore
185. Mahavir Tyagi
186. Harsh Deo Malviya
187. S. Nurul Hasan
188. Triloki Singh
189. Prem Manohar
190. Anand Narain Mulla
191. Sitaram Jaipuria
192. Mohan Singh Oberoi
193. Nageshwar Prasad Shahi
194. Kalyan Chand
195. T.N. Singh
196. Uma Shankar Dikshit
197. Chandra Shekhar
198. Prithwi Nath
199. Man Singh Varma
200. V.B. Singh
201. Z.A. Ahmad
202. Godey Murahari
203. Omprakash Tyagi
204. M. Asad Madani
205. Shyam Lal Yadav
206. Mahabir Prasad Shukla
207. Inder Singh
208. V.R. Mohan
209. Shyam Dhar Misra

West Bengal (16)

210. Sasankasekhar Sanyal
211. Suhrid Mullick Choudhury
212. Sardar Amjad Ali
213. Rajat Kumar Chakrabarti
214. Krishna Bahadur Chettri
215. Dwijendralal Sen Gupta
216. Bhupesh Gupta
217. Kalyan Roy
218. Debiprasad Chattopadhyaya
219. Kali Mukherjee
220. Smt. Purabi Mukhopadhyay
221. Salil Kumar Ganguli
222. Niren Ghosh
223. Sanat Kumar Raha
224. Pranab Kumar Mukherjee
225. Monoranjan Roy

Arunachal Pradesh (1)

226. Todak Basar*

Delhi (3)

227. Bhai Mahavir
228. Smt. Savita Behan
229. Lal K. Advani

Mizoram (1)

230. Vacant

Pondicherry (1)

231. S. Sivaprakasam

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*Nominated by the President.

Nominated by the President (12)

232. Rasheeduddin Khan
233. C.K. Daphtary
234. Umashankar Joshi
235. Jairamdas Daulatram
236. Pramatha Nath Bisi
237. K. Ramiah
238. Smt. Maragatham Chandrasekhar
239. Ganga Sharan Sinha
240. Habib Tanvir
241. Abu Abraham
242. Joachim Alva
243. V.P. Dutt

HOUSE OF THE PEOPLE (LOK SABHA)

Speaker: G. S. Dhillon
Deputy Speaker: G. G. Swell

Sl. No. 1	Constituency 2	Name of the Member 3	Party* 4
		Andhra Pradesh (41)	
1.	Adilabad	Poddutoori Ganga Reddy	Cong.
2.	Amalapuram (R)	B.S. Murthy	Cong.
3.	Anakapalli	S.R.A.S. Appalanaidu	Cong.
4.	Anantapur	Ponnapati Antony Reddi	Cong.
5.	Bhadrachalam (R)	Smt. B. Radhabai Ananda Rao	Cong.
6.	Bobbili	K. Narayana Rao	Cong.
7.	Chittoor	P. Narasimha Reddy	Cong.
8.	Cuddapah	Y. Eswara Reddy	CPI
9.	Eluru	Kommareddi Suryanarayana	Cong.
10.	Gudivada	Maganti Ankineedu	Cong.
11.	Guntur	K. Raghuramaiah	Cong.
12.	Hindupur	P. Bayapa Reddy	Cong.
13.	Hyderabad	G.S. Melkote	Cong.
14.	Kakinada	M.S. Sanjeevi Rao	Cong.
15.	Karimnagar	M. Satyanarayan Rao	TPS
16.	Kavali	P. Venkata Reddy	Cong.
17.	Khammam	Smt. T. Lakshmi Kantamma	Cong.
18.	Kurnool	K. Kodanda Rami Reddy	Cong.
19.	Machilipatnam	Meduri Nageswararao	Cong.
20.	Mahbubnagar	J. Rameshwar Rao	Cong.
21.	Medak	Mallikarjun	Cong.
22.	Miryalguda	B.N. Reddy	CPI (M)
23.	Nagarkurnool (R)	M. Bheeshma Dev	Cong.
24.	Nalgonda	K. Ramkrishna Reddy	Cong.
25.	Nandyal	P.Venkatasubbaiah	Cong.
26.	Narasapur	M.T. Raju	Cong.
27.	Narasaraopet	Maddi Sudarsanam	Cong.
28.	Nellore (R)	D. Kamakshiah	Cong.
29.	Nizamabad	Muduganti Ram Gopal Reddy	Cong.
30.	Ongole	P. Ankineedu Prasada Rao	Cong.
31.	Peddapalli (R)	V. Tulasiram	Cong.
32.	Parvathipuram (R)	Biddika Satyanarayana	Cong.
33.	Rajahmundry	S.B.P. Pattabhi Rama Rao	Cong.
34.	Rajampet	P. Parthasarathy	Cong.
35.	Secunderabad	M.M. Hashim	Cong.
36.	Siddipet (R)	G.Venkatswamy	Cong.
37.	Srikakulam	B. Rajagopala Rao	Cong.
38.	Tirupathi (R)	T. Balakrishniah	Cong.
39.	Visakhapatnam	P.V.G. Raju	Cong.
40.	Vijayawada	K.L. Rao	Cong.
41.	Warangal	S.B. Giri	TPS

*The abbreviations used are: Congress Party (Cong.); Communist Party of India (Marxist) CPI (M); Communist Party of India (CPI); Dravida Munnetra Kazhagam (DMK); Jana Sangh (JS); Congress (Opposition) Party (Cong. O) ;Telengana Praja Samiti (TPS); Socialist Party (SP); Swatantra Party (Swa); Muslim League (ML); Revolutionary Socialist Party (RSP); Kerala Congress (KC); United Independent Parliamentary Group (UIPG); Forward Bloc (FB); and Unattached (UA). (R) indicates reserved seats.

1	2	3	4
		Assam (14)	
42.	Barpeta	Fakhruddin Ali Ahmed	Cong.
43.	Cachar	Smt. Jyotsna Chanda	Cong.
44.	Dhubri	Moinul Haque Choudhury	Cong.
45.	Dibrugarh	Robindra Nath Kakoti	Cong.
46.	Diphu (R)	Biren Sngti	Cong.
47.	Gauhati	Dinesh Chandra Goswami	Cong.
48.	Jorhat	Tarun Gogoi	Cong.
49.	Kaliabor	Bedabrata Barua	Cong.
50.	Karimganj (R)	Nihar Ranjan Laskar	Cong.
51.	Kokrajhar (R)	D. Basumatari	Cong.
52.	Lakhimpur	Biswanarayan Shastri	Cong.
53.	Mangaldai	Dharanidhar Das	Cong.
54.	Nowgong	Liladhar Kotoki	Cong.
55.	Tezpur	Kamala Prasad	Cong.
		Bihar (53)	
56.	Araria (R)	Tulmohan Ram	Cong.
57.	Aurangabad	Satyendra Narayan Sinha	Cong. (O)
58.	Bagaha (R)	Bhola Raut	Cong.
59.	Banka	Shiva Chandika	Cong.
60.	Barh	Dharam Bir Sinha	Cong.
61.	Begusarai	Shyamnandan Mishra	Cong. (O)
62.	Bettiah	Kamal Nath Tewari	Cong.
63.	Bhagalpur	Bhagwat Jha Azad	Cong.
64.	Bikramganj	Shio Pujan Shastri	Cong.
65.	Buxar	Anant Prasad Sharma	Cong.
66.	Chapra	Ramshekhar Prasad Singh	Cong.
67.	Chatra	Shankar Dayal Singh	Cong.
68.	Darbhanga	L.N. Mishra	Cong.
69.	Dhanbad	Ram Narain Sharma	Cong.
70.	Dumka (R)	S. C. Besra	Cong.
71.	Gaya (R)	Ishwar Chaudhry	JS
72.	Giridih	Chapalendu Bhattacharyya	Cong.
73.	Godda	Jagdish Narain Mandal	Cong.
74.	Gopalganj	D.N. Tiwary	Cong.
75.	Hajipur	Digvijaya Narain Singh	Cong. (O)
76.	Hazaribagh	Damodar Pandey	Cong.
77.	Jainagar	Bhogendra Jha	CPI
78.	Jamshedpur	Swaran Singh Sokhi	Cong.
79.	Jamui (R)	Bhola Manjhi	CPI
80.	Jehanabad	Chandra Shekar Singh	CPI
81.	Katihar	Gyaneshwar Prasad Yadav	JS
82.	Kesaria	K. M. 'Madhukar'	CPI
83.	Khagaria	Shivashankar Prasad Yadav	SP
84.	Khunti (R)	(Vacant)	
85.	Kishanganj	Md. Jamilur Rahman	Cong.
86.	Lohardaga (R)	Kartik Oraon	Cong.
87.	Madhipura	R. P. Yadav	Cong.
88.	Madhubani	Jagannath Mishra	Cong.
89.	Maharajganj	Ram Deo Singh	SP
90.	Monghyr	Devnandan Prasad Yadav	Cong.
91.	Motihari	Bibhuti Mishra	Cong.
92.	Muzaffarpur	Nawal Kishore Sinha	Cong.
93.	Nalanda	Siddheshwar Prasad	Cong.
94.	Nawada	Sukhdeo Prasad Verma	Cong.
95.	Palamau (R)	Kum. Kamla Kumari	Cong.
96.	Patna	Ramavatar Shastri	CPI
97.	Pupri	Hari Kishore Singh	Cong.
98.	Purnea	Mohammad Tahir	Cong.
99.	Rajmahal (R)	Iswar Marandi	Cong.
100.	Ranchi	P. K. Ghosh	Cong.
101.	Rosera (R)	Ram Bhagat Paswan	Cong.
102.	Saharsa	Chiranjib Jha	Cong.
103.	Samastipur	Yamuna Prasad Mandal	Cong.

1	2	3	4
104.	Sasaram (R)	Jagjivan Ram	Cong.
105.	Shahabad	Bali Ram Bhagat	Cong.
106.	Singhbhum (R)	Moran Singh Purty	UIPG
107.	Sitamarhi	Nagendra Prasad Yadav	Cong.
108.	Siwan	Mohammad Yusuf	Cong.
		Gujarat (24)	
109.	Ahmedabad	Indulal Yajnik	Cong.
110.	Amreli	Jivraj N. Mehta	Cong.
111.	Anand	Pravinsinh Natvarsinh Solanki	Cong. (O)
112.	Banaskantha	Popatlal Mulshankerbhai Joshi	Cong.
113.	Baroda	Fatesinghrao Gaekwad	UA
114.	Bhavnagar	Prasannbhai Mehta	Cong. (O)
115.	Broach	Mansinhji Bhasaheb Rana	Cong.
116.	Bulsar (R)	Nanubhai N. Patel	Cong. (O)
117.	Dabhoi	Prabhudas Patel	Cong.
118.	Dhanduka	H. M. Patel	Swa
119.	Dohad (R)	Bhaljibhai Ravjibhai Parmar	Cong. (O)
120.	Gandhinagar (R)	Somchand Solanki	Cong. (O)
121.	Godhra	Piloo Mody	Swa
122.	Jamnagar	Daulatsinhji Pratapsinhji Jadeja	Cong.
123.	Junagadh	Nanjibhai Ravjibhai Vekaria	Cong.
124.	Kaira	D. D. Desai	Cong.
125.	Kutch	Mahipatray M. Mehta	Cong.
126.	Mandvi (R)	Amarsinh Z. Chaudhary	Cong.
127.	Mehsana	Natvarlal Amrutlal Patel	UA
128.	Patan (R)	Khemchandbhai Somabhai Chavda	Cong. (O)
129.	Rajkot	Arvind Kumar Mohanlal Patel	Cong.
130.	Sabarkantha	C. C. Desai	UA
131.	Surat	Morarji Desai	Cong. (O)
132.	Surendranagar	Rasiklal Parikh	Cong.
		Haryana (9)	
133.	Ambala (R)	Ch. Ram Prakash	Cong.
134.	Gurgaon	Chaudry Tayyab Hussain Khan	Cong.
135.	Hissar	Mani Ram Godara	Cong.
136.	Jhajjar	Sher Singh	Cong.
137.	Kaithal	Gulzari Lal Nanda	Cong.
138.	Karnal	Madho Ram Sharma	Cong.
139.	Mahendragarh	Rao Birender Singh	UA
140.	Rohtak	Mukhtiar Singh Malik	JS
141.	Sirsa (R)	Dalbir Singh	Cong.
		Himachal Pradesh (4)	
142.	Hamirpur	Narain Chand Parashar	Cong.
143.	Kangra	Vikram Mahajan	Cong.
144.	Mandi	Virbhadra Singh	Cong.
145.	Simla (R)	Partap Singh	Cong.
		Jammu and Kashmir (6)	
146.	Anantnag	Mohamed Shaffi Qureshi	Cong.
147.	Baramulla	Syed Ahmed Aga	Cong.
148.	Jammu	Inder J. Malhotra	Cong.
149.	Ladakh	Kushok Bakula	Cong.
150.	Srinagar	S. A. Shamim	UA
151.	Udhampur	Karan Singh	Cong.
		Kerala (19)	
152.	Adoor (R)	Smt. Bhargavi Thankappan	CPI
153.	Ambalapuzha	K. Balakrishnan	RSP
154.	Badagara	K. P. Unnikrishnan	Cong.
155.	Chirayinkil	Vayalar Ravi	Cong.

1	2	3	4
156.	Ernakulam	Henry Austin	Cong.
157.	Kasargod	Ramachandran Kadannappalli	Cong.
158.	Kottayam	Varkey George	KC
159.	Kozhikode	Ebrahim Sulaiman Sait	ML
160.	Manjeri	(Vacant)	
161.	Mavelikara	R. Balakrishna Pillai	KC
162.	Mukundapuram	A. C. George	Cong.
163.	Muvattupuzha	C. M. Stephen	Cong.
164.	Palghat	A. K. Gopalan	CPI (M)
165.	Peermade	M. M. Joseph	KC
166.	Ponnani (R)	M. K. Krishnan	CPI (M)
167.	Quilon	N. Sreekantan Nair	RSP
168.	Tellicherry	C.K. Chandrappan	CPI
169.	Trichur	C. Janardhanan	CPI
170.	Trivandrum	V. K. Krishna Menon	UA
		Madhya Pradesh (37)	
171.	Balaghat	C. D. Gautam	Cong.
172.	Bastar (R)	Lambodar Baliar	Cong.
173.	Betul	N. K. P. Salve	Cong.
174.	Bhind	Smt. V. R. Scindia	JS
175.	Bhopal	Shankar Dayal Sharma	Cong.
176.	Bilaspur	R. G. Tiwari	Cong.
177.	Chhindwara	Gargi Shankar Mishra	Cong.
178.	Durg	Chandulal Chandrakar	Cong.
179.	Damoh	V. Shanker Giri	Cong.
180.	Dhar (R)	Bharat Singh Chowhan	JS
181.	Guna	Madhavrao Scindia	JS
182.	Gwalior	Atal Bihari Vajpayee	JS
183.	Hoshangabad	Chaudhary Nitiraj Singh	Cong.
184.	Indore	Ramsingh Bhai	Cong.
185.	Jabalpur	Govind Das	Cong.
186.	Janjgir (R)	Smt. Minimata Agamdas	Cong.
187.	Jhabua (R)	Bhagirath Ramaji Bhanwar	SP
188.	Kanker (R)	Arvind Netam	Cong.
189.	Khandwa	Gangacharan Dixit	Cong.
190.	Khargone	R. V. Bade	JS
191.	Mahasamund	Shrikrishna Agrawal	Cong.
192.	Mandla (R)	M. G. Uikey	Cong.
193.	Mandsaur	L. N. Pandeya	JS
194.	Morena (R)	Hukam Chand Kachhwai	JS
195.	Raigarh (R)	Ummed Singh Rathia	Cong.
196.	Raipur	Vidya Charan Shukla	Cong.
197.	Rajnandgaon	Ramsahai Pandey	Cong.
198.	Rewa	Martand Singh	UIPG
199.	Sagar (R)	Smt. Sahodrabai Rai	Cong.
200.	Satna	Narendra Singh	JS
201.	Shahdol (R)	Dhan Shah Pradhan	UIPG
202.	Shahapur	Jagannathrao Joshi	JS
203.	Sidhi	Rana Bahadur Singh	UIPG
204.	Surguja (R)	Babunath Singh	Cong.
205.	Tikamgarh (R)	Nathu Ram Ahirwar	Cong.
206.	Ujjain (R)	Phool Chand Verma	JS
207.	Vidisha	R. N. Goenka	UIPG
		Maharashtra (45)	
208.	Ahmednagar	Annasaheb P. Shinde	Cong.
209.	Akola	Vasant Sathe	Cong.
210.	Amravati	K. G. Deshmukh	Cong.
211.	Aurangabad	Manikrao Palodakar	Cong.
212.	Baramati	R.K. Khadilkar	Cong.
213.	Bhandara	Jwala Prasadji Dube	Cong.
214.	Bhir	S. T. Pandit	Cong.
215.	Bhiwandi	Shrikrishna Vaijnath Dhamankar	Cong.
216.	Bombay Central	R.D. Bhandare	Cong.

1	2	3	4
217.	Bombay Central-South	Salebhoy Abdul Kader	Cong.
218.	Bombay North-East	Raja Kulkarni	Cong.
219.	Bombay North-West	H.R. Gokhale	Cong.
220.	Bombay South	N.N. Kailas	Cong.
221.	Buldana	Yadav Shivram Mahajan	Cong.
222.	Chanda	Abdul Shafee	Cong.
223.	Chimur	Krishnarao Thakur	Cong.
224.	Dahanu (R)	Laxman Kakadya Dumada	Cong.
225.	Dhulia	C.A. Patil	Cong.
226.	Hatkanangale	Dattajirao Baburao Kadam	Cong.
227.	Jalgaon	Krishnarao Madhavrao Patil	Cong.
228.	Jalna	Baburao Jangluji Kale	Cong.
229.	Karad	D.R. Chavan	Cong.
230.	Khed	Anantrao Patil	Cong.
231.	Khamgaon (R)	Arjun Shripat Kasture	Cong.
232.	Kolaba	Shankarrao Savant	Cong.
233.	Kolhapur	Rajaram D. Nimbalkar	Cong.
234.	Kopargaon	Eknath Vithalrao Vikhe Patil	Cong.
235.	Latur (R)	Tulsiram Dashrath Kamble	Cong.
236.	Malegaon (R)	Z.M. Kahandole	Cong.
237.	Nagpur	Jambuvant Dhote	FB
238.	Nanded	Tarodekar Venkatrao	Cong.
239.	Nandurbar (R)	T.H. Gavit	Cong.
240.	Nasik	B.R. Kavade	Cong.
241.	Osmanabad	T.A. Patil	Cong.
242.	Pandharpur (R)	Nivruti Satwaji Kamble	UA
243.	Parbhani	Shivajirao S. Deshmukh	Cong.
244.	Poona	Mohan Dharia	Cong.
245.	Rajapur	Madhu Dandavate	SP
246.	Ramtek	A.G. Sonar	Cong.
247.	Ratnagiri	S.L. Peje	Cong.
248.	Sangli	Anna Saheb Gotkhinde	Cong.
249.	Satara	Y.B. Chavan	Cong.
250.	Sholapur	S.R. Damani	Cong.
251.	Wardha	J.G. Kadam	Cong.
252.	Yeotmal	S.B. Thakre	Cong.
		Manipur (2)	
253.	Inner Manipur	N. Tombi Singh	Cong.
254.	Outer Manipur	Paokai Hokip	Cong.
		Meghalaya (2)	
255.	Shillong	G.G. Swell	UA
256.	Tura	Karnesh Marak	UA
		Mysore (27)	
257.	Bagalkot	S.B. Patil	Cong.
258.	Bangalore	K. Hanumanthaiya	Cong.
259.	Belgaum	A.K. Kotrashetti	Cong.
260.	Bellary	V.K.R. Varadaraja Rao	Cong.
261.	Bidar (R)	Shankar Deo	Cong.
262.	Bijapur	Bhimappa Ellappa Choudhari	Cong.
263.	Chamarajanagar (R)	S.M. Siddayya	Cong.
264.	Chikmagalur	D.B. Chandre Gowda	Cong.
265.	Chikodi (R)	B. Shankaranand	Cong.
266.	Chitradurga	Kondajji Basappa	Cong.
267.	Dharwar North	Smt. Sarojini Mahishi	Cong.
268.	Dharwar South	F.H. Mohsin	Cong.
269.	Gulbarga	D.S. Afzalpurkar	Cong.
270.	Hassan	Nuggehalli Shivappa	Cong.
271.	Hoskote	M.V. Krishnappa	Cong.
272.	Kanakapura	C.K. Jaffer Sharief	Cong.
273.	Kanara	B.V. Naik	Cong.

1	2	3	4
274.	Kolar (R)	G.Y. Krishnan	Cong.
275.	Koppal	Siddarameshwar Swami	Cong.
276.	Mandya	(Vacant)	
277.	Madhugiri	K. Mallanna	Cong.
278.	Mangalore	K.K. Shetty	Cong.
279.	Mysore	Tulsidas Dasappa	Cong.
280.	Raichur	Pampan Gowda	Cong.
281.	Shimoga	T.V. Chandrashekharappa Veerabasappa	Cong.
282.	Tumkur	K. Lakkappa	Cong.
283.	Udipi	P. Ranganath Shenoy	Cong.
		Nagaland (1)	
284.	Nagaland	A. Kevichusa	UIPG
		Orissa (20)	
285.	Angul	Badakumar Pratap Gangadeb	Cong.
286.	Balasore	Shyam Sunder Mahapatra	Cong.
287.	Bhadrak (R)	Arjun Sethi	Cong.
288.	Bhanjanagar	Duti Krushna Panda	CPI
289.	Bhubaneswar	Chintamani Panigrahi	Cong.
290.	Bolangir	R.R. Singh Deo	Swa
291.	Chatrapur	Jaganath Rao	Cong.
292.	Cuttack	Janaki Ballav Patnaik	Cong.
293.	Dhenkanal	Devendra Satpathy	Cong.
294.	Jajpur (R)	Anadi Charan Das	Cong.
295.	Kalahandi	Pratap Keshari Deo	Swa
296.	Kendrapara	Surendra Mohanty	UIPG
297.	Keonjhar (R)	Kumar Majhi	Cong.
298.	Koraput (R)	Giridhar Gamango	Cong.
299.	Mayurbhanj (R)	Chandramohan Sinha	UIPG
300.	Nowrangpur (R)	K. Pradhani	Cong.
301.	Phulbani (R)	Baksi Nayak	Swa
302.	Puri	Banamali Patnaik	Cong.
303.	Sambalpur	Banamali Babu	Cong.
304.	Sundargarh (R)	Gajadhar Majhi	Cong.
		Punjab (13)	
305.	Amritsar	Raghunandan Lal Bhatia	Cong.
306.	Bhatinda (R)	B.S. Bhaura	CPI
307.	Fazilka	Gurdas Singh Badal	UA
308.	Ferozepore	Mohinder Singh Gill	Cong.
309.	Gurdaspur	Prabodh Chandra	Cong.
310.	Hoshiarpur	Darbara Singh	Cong.
311.	Jullundur	Swaran Singh	Cong.
312.	Ludhiana	Devinder Singh Garcha	Cong.
313.	Patiala	Sat Pal Kapur	Cong.
314.	Phillaur (R)	Chaudhary Sadhu Ram	Cong.
315.	Rupar (R)	Buta Singh	Cong.
316.	Sangrur	Teja Singh Swatantra	CPI
317.	Tarn Taran	Gurdial Singh Dhillon	*
		Rajasthan (23)	
318.	Ajmer	Bashweshwar Nath Bhargava	Cong.
319.	Alwar	Hari Prasad Sharma	Cong.
320.	Banswara (R)	Hiralal Doda	Cong.
321.	Barmer	Amrit Nahata	Cong.
322.	Bharatpur	Raj Bahadur	Cong.
323.	Bhilwara	Hemendra Singh Banera	JS
324.	Bikaner	Karni Singh	UIPG

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*Dr. G.S. Dhillon was elected on the Congress ticket but ceased to have any party affiliation after his election as Speaker of the Lok Sabha.

1	2	3	4
325.	Chittorgarh	Bishwanath Jhunjhunwala	JS
326.	Dausa	Nawal Kishore Sharma	Cong.
327.	Ganganagar (R)	Panna Lal Barupal	Cong.
328.	Hindaun (R)	Jagannath Pahadia	Cong.
329.	Jaipur	Smt. Gayatri Devi	Swa
330.	Jalore	N.K. Sanghi	Cong.
331.	Jhalawar	Brijraj Singh Kotah	UA
332.	Jhunjhunu	S.N. Singh	Cong.
333.	Jodhpur	Smt. Krishna Kumari	UIPG
334.	Kota (R)	Onkar Lal Berwa	JS
335.	Nagaur	Nathuram Mirdha	Cong.
336.	Pali	Mool Chand Daga	Cong.
337.	Sawai Madhopur (R)	Chhuttan Lal	Cong.
338.	Sikar	Shrikrishan Modi	Cong.
339.	Tonk (R)	Ram Kanwar	Swa
340.	Udaipur (R)	Lalji Bhai	JS
		Tamil Nadu (39)	
341.	Chidambaram (R)	V. Mayavan	DMK
342.	Chingleput	C. Chittibabu	DMK
343.	Coimbatore	K. Baladhandayutham	CPI
344.	Cuddalore	S. Radhakrishnan	Cong.
345.	Dharapuram (R)	C.T. Dhandapani	DMK
346.	Dindigul	M. Rajangam	DMK
347.	Gobichettipalayam	P.A. Swamynathan	DMK
348.	Kallakurichi	M. Deiveekan	DMK
349.	Karur	K. Gopal	Cong.
350.	Krishnagiri	C. Subramaniam	Cong.
351.	Kumbakonam	Era Sezhiyan	DMK
352.	Madras North	Krishnan Manoharan	DMK
353.	Madras South	Murasoli Maran	DMK
354.	Madurai	R.V. Swaminathan	Cong.
355.	Mayuram (R)	K. Subravelu	DMK
356.	Mettur	Iruppu Govindaswamy Bhuvarahan	Cong.
357.	Nagapattinam	M. Kathamuthu	CPI
358.	Nagercoil	K. Kamaraj	Cong. (O)
359.	Nilgiris	J.M. Gowder	DMK
360.	Perambalur (R)	A. Durairasu	DMK
361.	Periakulam	Muhammed Sheriff	ML
362.	Pollachi	Mohan Raj	DMK
363.	Pudukkottai	K. Veeriah	DMK
364.	Ramanathapuram	P.K.M. Thevar	FB
365.	Salem	E.R. Krishnan	DMK
366.	Sivaganga	T. Kiruttinan	DMK
367.	Sivakasi	Smt. Venkatasami Jeyalakshmi	Cong.
368.	Sriperumbudur (R)	T.S. Lakshmanan	DMK
369.	Tenkasi (R)	A.M. Chellachami	Cong.
370.	Thanjavur	S.D. Somasundaram	DMK
371.	Tindivanam	M.R. Lakshminarayanan	Cong.
372.	Tiruchendur	M.S. Sivasamy	DMK
373.	Tiruchengode	M. Muthuswamy	DMK
374.	Tiruchirappalli	M. Kalyanasundaram	CPI
375.	Tirunelveli	S.A. Muruganantham	CPI
376.	Tiruppattur	C.K. Chinnaraji	DMK
377.	Tiruttani	O.V. Alagesan	Cong.
378.	Vellore (R)	R.P. Ulaganambi	DMK
379.	Wandiwash	G. Viswanathan	DMK
		Tripura (2)	
380.	Tripura East (R)	D. Deb	CPI (M)
381.	Tripura West	Biren Dutta	CPI (M)
		Uttar Pradesh (85)	
382.	Agra	Achal Singh	Cong.
383.	Akbarpur (R)	Ramji Ram	Cong.

1	2	3	4
384.	Aligarh	Shiv Kumar Shastri	UA
385.	Allahabad	Hemwati Nandan Bahuguna	Cong.
386.	Almora	Narendra Singh Bisht	Cong.
387.	Amethi	Vidya Dhar Bajpai	Cong.
388.	Amroha	Ishaq Sambhali	CPI
389.	Aonla	Smt. Savitri Shyam	Cong.
390.	Azamgarh	Chandrajeet Yadav	Cong.
391.	Baghpat	Ram Chandra Vikal	Cong.
392.	Bahraich	Badlu Ram Shukla	Cong.
393.	Ballia	Chandrika Prasad	Cong.
394.	Balrampur	Chandra Bhal Mani Tewari	Cong.
395.	Banda	R.R. Sharma	JS
396.	Bansgaon (R)	Ram Surat Prasad	Cong.
397.	Bara Banki	Rudra Pratap Singh	Cong.
398.	Bareilly	Satish Chandra	Cong.
399.	Basti (R)	A.P. Dhusia	Cong.
400.	Bijnor (R)	Swami Ramanand Shastri	Cong.
401.	Bilhaur	Smt. Sushila Rohatgi	Cong.
402.	Budaun	Karan Singh Yadav	Cong.
403.	Bulandshahr	Surendra Pal Singh	Cong.
404.	Chail (R)	Chhotey Lal	Cong.
405.	Chandauli	Sudhakar Pandey	Cong.
406.	Dehra Dun	Mulki Raj Saini	Cong.
407.	Deoria	Bishwanath Roy	Cong.
408.	Domariaganj	K.D. Malaviya	Cong.
409.	Etah	Rohanlal Chaturvedi	Cong.
410.	Etawah	Shri Shanker Tewari	Cong.
411.	Faizabad	R.K. Sinha	Cong.
412.	Farrukhabad	Awdhesh Chandra Singh	Cong.
413.	Fatehpur	Sant Bux Singh	Cong.
414.	Firozabad (R)	Chhatrapati Ambesh	Cong.
415.	Garhwal	Pratap Singh Negi	Cong.
416.	Ghatampur (R)	Tula Ram	Cong.
417.	Ghazipur	Sarjoo Pandey	CPI
418.	Ghosi	Jharkhandey Rai	CPI
419.	Gonda	Anand Singh	Cong. (O)
420.	Gorakhpur	Narsingh Narain Pandey	Cong.
421.	Hamirpur	Swami Brahmanand	Cong.
422.	Hapur	Buddha Priya Maurya	Cong.
423.	Hardoi (R)	Kinder Lal	Cong.
424.	Hathras (R)	Chandra Shailani	Cong.
425.	Jalaun (R)	Chowdhary Ram Sewak	Cong.
426.	Jaunpur	Rajdeo Singh	Cong.
427.	Jhansi	Govind Dass Richhariya	Cong.
428.	Kairana	Shafquat Jung	Cong.
429.	Kaisarganj	Smt. Shakuntala Nayar	JS
430.	Kannauj	S.N. Misra	Cong.
431.	Kanpur	S.M. Banerjee	CPI
432.	Kasganj	Mahadeepak Singh Shakya	JS
433.	Khalilabad	Krishna Chandra Pandey	Cong.
434.	Kheri	Balgovind Verma	Cong.
435.	Khurja (R)	Hari Singh	Cong.
436.	Lalganj (R)	Ram Dhan	Cong.
437.	Lucknow	Smt. Sheila Kaul	Cong.
438.	Machhlishahr	Nageshwar Dwivedi	Cong.
439.	Maharajganj	Shibban Lal Saksena	UA
440.	Mainpuri	Maharaj Singh	Cong.
441.	Mathura	Chakleshwar Singh	Cong.
442.	Meerut	Shahnawaz Khan	Cong.
443.	Mirzapur	Aziz Imam	Cong.
444.	Misrikh (R)	Sankta Prasad	Cong.
445.	Mohanlalganj (R)	Smt. Ganga Devi	Cong.
446.	Moradabad	Virendra Agarwala	JS
447.	Muzaffarnagar	Vijay Pal Singh	CPI
448.	Nainital	Krishna Chandra Pant	Cong.
449.	Padrauna	Genda Singh	Cong.
450.	Phulpur	V.N.P. Singh	Cong.

1	2	3	4
451.	Pilibhit	Mohan Swarup	Cong.
452.	Pratapgarh	Dinesh Singh	Cong.
453.	Rae Bareli	Smt. Indira Nehru Gandhi	Cong.
454.	Rampur	Zulfiquar Ali Khan	Cong.
455.	Ramsanehighat (R)	Baij Nath Kureel	Cong.
456.	Robertsganj (R)	Ram Swarup	Cong.
457.	Saharanpur (R)	Sunder Lal	Cong.
458.	Saidpur (R)	Shambhu Nath	Cong.
459.	Salempur	Tarkeshwar Pande	Cong.
460.	Shahabad	Dharamgaj Singh	Cong.
461.	Shahjahanpur	Jitendra Prasad	Cong.
462.	Sitapur	Jagdish Chandra Dikshit	Cong.
463.	Sultanpur	Kedar Nath Singh	Cong.
464.	Tehri Garhwal	Paripoornanand Painuli	Cong.
465.	Unnao	Ziaur Rahman Ansari	Cong.
466.	Varanasi	Rajaram Shastri	Cong.
		West Bengal (40)	
467.	Alipore	Indrajit Gupta	CPI
468.	Arambagh	Manoranjan Hazra	CPI (M)
469.	Asansol	Robin Sen	CPI (M)
470.	Ausgram (R)	Krishna Chandra Halder	CPI (M)
471.	Balurghat (R)	Rasendra Nath Barman	Cong.
472.	Bankura	Shankar Narayan Singh Deo	Cong.
473.	Barasat	Ranen Sen	CPI
474.	Barrackpore	Mahammad Ismail	CPI (M)
475.	Basirhat	A.K.M. Ishaque	Cong.
476.	Berhampore	Tridib Chaudhuri	RSP
477.	Birbhum (R)	Gadadhar Saha	CPI (M)
478.	Bolpur	Saradish Roy	CPI (M)
479.	Burdwan	Somnath Chatterjee	CPI (M)
480.	Calcutta North-East	Hirendra Nath Mukerjee	CPI
481.	Calcutta North-West	A.K. Sen	Cong.
482.	Calcutta South	P.R. Dasmunsi	Cong.
483.	Contai	Samar Guha	SP
484.	Cooch Behar (R)	Benoy Krishna Daschowdhury	Cong.
485.	Darjeeling	Rattanlal Brahman	CPI (M)
486.	Diamond Harbour	Jyotirmoy Bosu	CPI (M)
487.	Ghatal	Jagadish Bhattacharyya	CPI (M)
488.	Hooghly	Bijoy Modak	CPI (M)
489.	Howrah	Samar Mukherjee	CPI (M)
490.	Jalpaiguri (R)	Tuna Oraon	Cong.
491.	Jangipur	Haji Lutfal Haque	Cong.
492.	Jhargram (R)	A.K. Kisku	Cong.
493.	Joynagar (R)	Sakti Kumar Sarkar	Cong.
494.	Katwa	Saroj Mukherjee	CPI (M)
495.	Krishnagar	R.P. Das	CPI (M)
496.	Malda	Dinesh Joarder	CPI (M)
497.	Mathurapur (R)	Madhuryya Haldar	CPI (M)
498.	Midnapore	Subodh Chandra Hansda	Cong.
499.	Murshidabad	Muhammed Khuda Buksh	Cong.
500.	Nabadwip (R)	Smt. Bibha Ghosh Goswami	CPI (M)
501.	Purulia	Debendra Nath Mahata	Cong.
502.	Raiganj	Smt. Maya Ray	Cong.
503.	Serampore	Dinen Bhattacharya	CPI (M)
504.	Tamluk	Satish Chandra Samanta	Cong.
505.	Uluberia	Shyamaprasanna Bhattacharyya	CPI (M)
506.	Vishnupur (R)	Ajit Kumar Saha	CPI (M)
		Delhi (7)	
507.	Chandni Chowk	Smt. Subhadra Joshi	Cong.
508.	Delhi Sadar	A.N. Chawla	Cong.
509.	East Delhi	H.K.L. Bhagat	Cong.
510.	Karol Bagh (R)	T. Sohan Lal	Cong.
511.	New Delhi	Smt. Mukul Banerji	Cong.

1	2	3	4
512.	Outer Delhi	Chaudhry Dalip Singh	Cong.
513.	South Delhi	Shashi Bhushan	Cong.
		Goa, Daman and Diu (2)	
514.	Panjim	Purushottam Kakodkar	Cong.
515.	Marmagoa	Erasmo De Sequeira	UIPG
		Other Territories (6)	
516.	Andaman & Nicobar Islands	K.R. Ganesh	Cong.
517.	Chandigarh	Amar Nath Vidyalankar	Cong.
518.	Dadra & Nagar Haveli (R)	Ramubhai Ravjibhai Patel	Cong.
519.	Laccadive, Minicoy & Amindivi Islands (R)	P.M. Sayeed	Cong.
520.	Mizoram (R)	Sangliana	UA
521.	Pondicherry	S. Mohan Kumaramangalam	Cong.
		Arunachal Pradesh (1)*	Cong.
522.	Arunachal Pradesh	C.C. Gohain	Cong.
		Anglo-Indians (2)*	
523.	—	Frank Anthony	UIPG
524.	—	Smt. Marjorie Godfrey	UIPG

*Nominated by the President.

Table 3.1 shows the State-wise allocation of seats in the two Houses and party position in the Lok Sabha on 24 June 1972.

Functions and Powers of Parliament

The main functions of Parliament are to make laws for the country, to make finances available to the Government and appropriate funds necessary for the services of the State. The Council of Ministers is collectively responsible to the House of the People. Parliament is also vested with the powers to impeach the President and to remove judges of the Supreme Court and High Courts, the Chief Election Commissioner and the Comptroller and Auditor-General in accordance with the procedure laid down in the Constitution.

All legislation requires the consent of both Houses of Parliament. Delegated legislation is also subject to review and control by Parliament. Although all financial legislation must be recommended by the President, the House of the People alone has the power to assent or refuse to assent to the demands for grants, authorise appropriations of moneys and proposals for taxation. Parliament's power to debate public questions and review the work of the different departments of the Government is unfettered by any limitations except those imposed by the Constitution or by its own rules of procedure. In times of an emergency, the legislative authority of Parliament also extends to matters enumerated in the State List. The power to amend the Constitution also rests primarily with Parliament, except in some cases where ratification by the legislatures of not less than one-half of the States is prescribed by the Constitution.

Parliamentary Committees

To assist Parliament in its deliberations, Parliamentary committees are appointed or elected by the respective Houses themselves on a motion made, or nominated by their presiding officers. The commi-

TABLE 3.1

ALLOCATION OF SEATS IN TWO HOUSES OF PARLIAMENT AND PARTY POSITION IN LOK SABHA AS ON 24 JUNE 1972

	No. of seats in Rajya Sabha	Lok Sabha								
		No. of seats	Congress	Communist Party of India (Marxist)	Communist Party of India	Dravida Munnetra Kazhagam	Jana Sangh	Other Parties	Un-attached	Total
1. Andhra Pradesh	18	41	37	1	1	—	—	2(a)	—	41
2. Assam	7	14	14	—	—	—	—	—	—	14
3. Bihar	22	53	39	—	5	—	2	6(b)	—	52 (1 vacant)
4. Gujarat	11	24	12	—	—	—	—	9(c)	3	24
5. Haryana	5	9	7	—	—	—	1	—	1	9
6. Himachal Pradesh	3	4	4	—	—	—	—	—	—	4
7. Jammu & Kashmir	4	6	5	—	—	—	—	—	1	6
8. Kerala	9	19	6	2	3	—	—	6(d)	1	18 (1 vacant)
9. Madhya Pradesh	16	37	22	—	—	—	10	5(e)	—	37
10. Maharashtra	19	45	42	—	—	—	—	2(f)	1	45
11. Manipur	1	2	2	—	—	—	—	—	—	2
12. Meghalaya	1	2	—	—	—	—	—	—	2	2
13. Mysore	12	27	26	—	—	—	—	—	—	26 (1 vacant)
14. Nagaland	1	1	—	—	—	—	—	1(g)	—	1
15. Orissa	10	20	14	—	1	—	—	5(h)	—	20
16. Punjab	7	13	9	—	2	—	—	—	1	12*
17. Rajasthan	10	23	14	—	—	—	4	4(i)	1	23
18. Tamil Nadu	18	39	9	—	4	23	—	3(j)	—	39
19. Tripura	1	2	—	2	—	—	—	—	—	2
20. Uttar Pradesh	34	85	73	—	5	—	4	1(k)	2	85
21. West Bengal	16	40	15	20	3	—	—	2(l)	—	40
22. Andaman & Nicobar Islands	—	1	1	—	—	—	—	—	—	1

23. Chandigarh ..	—	1	1	—	—	—	—	—	—	1
24. Dadra & Nagar Haveli ..	—	1	1	—	—	—	—	—	—	1
25. Delhi ..	3	7	7	—	—	—	—	—	—	7
26. Goa, Daman & Diu ..	—	2	1	—	—	—	—	1(m)	—	2
27. Laccadive, Minicoy & Amindivi Islands ..	—	1	1	—	—	—	—	—	—	1
28. Mizoram ..	1	1	—	—	—	—	—	—	1	1
29. Pondicherry ..	1	1	1	—	—	—	—	—	—	1
30. Arunachal Pradesh ..	1**	1**	1	—	—	—	—	—	—	1
31. Anglo-Indian Community	—	2**	—	—	—	—	—	2(n)	—	2
32. Nominated by President under art 80(i) (a) of the Constitution ..	12	—	—	—	—	—	—	—	—	—
	243	524	364	25	24	23	21	49	14	520*+3 vacant

* Excludes the Speaker, who is not a member of any party.
** Nominated by the President.
(a) Telengana Praja Samiti—2.
(b) Socialist Party—2, Cong. (O)—3, UIPG—1.
(c) Swatantra—2, Cong. (O) — 7.
(d) Muslim League—1, Revolutionary Socialist Party—2, Kerala Congress—3.
(e) Socialist Party—1, UIPG—4.
(f) Socialist Party—1, Forward Bloc—1.
(g) UIPG—1.
(h) Swatantra—3, UIPG—2.
(i) Swatantra —2, UIPG—2.
(j) Muslim League—1, Forward Bloc—1, Cong. (O)—1.
(k) Cong. (O)—1.
(l) Revolutionary Socialist Party—1, Socialist Party—1.
(m) UIPG—1.
(n) UIPG—2.

ttees broadly fall under three groups: those concerned mainly with the organisation and powers of the Houses; those assisting the Houses in their legislative functions; and committees with financial functions. In the first category fall the Committees on Rules, Privileges and Absence of Members and the Business Advisory Committee. The legislative committees include Select Committees of either House and Joint Select Committees of the two Houses, set up *ad hoc* for the consideration of important bills. The three important committees in the third category are the Public Accounts, the Estimates and the Public Undertakings Committees. While Rajya Sabha members are associated with the first and third committees, membership of the second is confined only to the Lok Sabha.

The Public Accounts Committee scrutinises the Appropriation Accounts of the Government of India and the report of the Comptroller and Auditor-General thereon. It ensures that public money is spent in accordance with Parliament's decisions and calls attention to cases of waste, extravagance, loss, nugatory expenditure or lack of financial integrity in public services. The Estimates Committee reports on "what economies, improvements in organisation, efficiency or administrative reform, consistent with the policy underlying the estimates" may be effected. It also examines whether "the money is well laid out within the limits of the policy implied in the estimates" and suggests the form in which the estimates shall be presented to Parliament. The Committee on Public Undertakings examines the reports and accounts of certain specified public undertakings and reports of the Auditor-General thereon, if any. It also examines whether the public undertakings are being run efficiently and "managed in accordance with sound business principles and prudent commercial practices". Other important committees of the Lok Sabha are the Committee on Government Assurances, the Committee on Subordinate Legislation and the Committee on Petitions. The function of the Committee on Government Assurances is to scrutinise the assurances, promises and undertakings given by Ministers on the floor of the House and to report on the extent to which such assurances have been implemented. The Committee on Subordinate Legislation scrutinizes whether the powers to make regulations, rules, sub-rules and bye-laws conferred by the Constitution or delegated by Parliament are being properly exercised within such delegation. The function of the Committee on Petitions is to examine the complaints and grievances contained in the petitions presented to Lok Sabha or representations received from individuals or associations. Ministers are debarred from being members of these six committees.

There are three standing Joint Committees of the two Houses also. They are the Committee on Offices of Profit, the Committee on Salaries and Allowances of Members of Parliament and the Committee on the Welfare of Scheduled Castes and Scheduled Tribes. The third committee considers the reports submitted by the Commissioner for Scheduled Castes and Scheduled Tribes and reports to both Houses as to the measures that should be taken by the Union Government (including the administrations of the Union Territories) for the welfare of the Scheduled Castes and Scheduled Tribes.

Consultative Committees

There are Consultative Committees for different Ministries which provide a forum for discussion between members of Parliament and the Ministries of the Government on matters of policy and the working of administrative departments. These committees function in accordance with the guidelines evolved by the Government in consultation with leaders of opposition parties/groups.

JUDICIARY

Supreme Court

The Supreme Court of India consists of a Chief Justice and not more than thirteen other Judges appointed by the President. The Judges hold office till the age of 65. For appointment as a Judge of the Supreme Court, a person must be a citizen of India and must have been for at least five years a Judge of a High Court or of two or more such courts in succession; or an advocate of a High Court or of two or more such courts in succession for at least ten years; or he must be in the opinion of the President, a distinguished jurist. Provision exists for the appointment of a Judge of a High Court as an *ad hoc* Judge of the Supreme Court and for retired Judges of the Supreme Court or High Courts to sit and act as Judges of that Court.

The Constitution seeks to ensure the independence of the Supreme Court Judges in various ways. A Judge of the Supreme Court cannot be removed from office except by an order of the President passed after an address by each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members present and voting has been presented to the President in the same session for such removal on the ground of proved misbehaviour or incapacity. A retired Judge of the Supreme Court is debarred from practising in any court of law or before any other authority in India.

The membership of the Court as on 15 May 1972 was as follows:

Chief Justice:	S.M. Sikri	
Judges:	J.M. Shelat	P. Jaganmohan Reddy
	C.A. Vaidialingam	I.D. Dua
	K.S. Hegde	D.G. Palekar
	A.N. Grover	H.R. Khanna
	A.N. Ray	K.K. Mathew
		M.H. Beg

The law officers of the Union Government were:

Attorney-General: Niren De
Solicitor-General: Jagdish Swaroop

Jurisdiction of Supreme Court

The Supreme Court has original and appellate jurisdiction. Its exclusive original jurisdiction extends to any dispute between the Union and one or more States; or between the Union and any State or States on one side and one or more other States on the other; or between two or more States, if and insofar as the dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends. In addition, article 32 of the Constitution gives an extensive original jurisdiction to the Supreme Court in regard to the enforcement of fundamental rights. It is empowered to issue directions or orders or writs, including those in the nature of writs of *habeas corpus*, *mandamus*, prohibition, *quo warranto* and *certiorari*, whichever may be appropriate, to enforce them.

The appellate jurisdiction of the Supreme Court can be invoked by a certificate of the High Court concerned or by special leave granted by the Supreme Court, in respect of any judgment, decree or final order of the High Court in cases, both civil and criminal, involving substantial questions of law as to the interpretation of the Constitution. Appeals also lie to the Supreme Court in civil matters, where the amount or value of the subject-matter of the dispute is not less than Rs 20,000 or where the judgment, decree or final order involves claims respecting property of like amount, or where the

High Court concerned certifies that the case is a fit one for appeal to the Supreme Court. In criminal cases an appeal lies to the Supreme Court if the High Court (a) has on appeal reversed an order of acquittal of an accused person and sentenced him to death, or to imprisonment for life or to imprisonment for a period of not less than 10 years, (b) has withdrawn for trial before itself any case from any court subordinate to its authority and has in such trial convicted the accused person and sentenced him to death or to imprisonment for life or to imprisonment for a period of not less than 10 years, and (c) certifies that the case is a fit one for appeal to the Supreme Court. Parliament is authorised to confer on the Supreme Court any further powers to entertain and hear appeals from any judgment, final order or sentence in a criminal proceeding of a High Court.

Besides this, the Supreme Court has a very wide appellate jurisdiction over all courts and tribunals in India inasmuch as it can grant special leave to appeal from any judgment, decree, determination, sentence or order in any case or matter passed or made by any court or tribunal in the territory of India.

It has also a special advisory jurisdiction in matters which may specifically be referred to it by the President under article 143 of the Constitution.

THE STATES

The system of government in the States closely resembles that of the Union.

EXECUTIVE

Governor

The State Executive consists of the Governor and a Council of Ministers with a Chief Minister at its head.

The Governor of a State is appointed by the President for a term of five years and holds office during his pleasure. Only Indian citizens above 35 years of age are eligible for appointment to this office. The Governor is the head in each State and all executive actions of the State are taken in his name.

The Governor has to act on the aid and advice of the Council of Ministers, except insofar as he is by or under the Constitution required to exercise his functions or any of them in his discretion. The discretionary powers of the Governors, specifically so stated in the Constitution, are only those relating to certain matters concerning the administration of the tribal areas in Assam and Meghalaya, the Tuensang area of Nagaland, the Hill Areas of Manipur and the Telengana region of Andhra Pradesh and the maintenance of law and order in Nagaland. However, all Governors in discharging some functions, such as, while appointing the Chief Minister of a State or sending a report to the President about the failure of the constitutional machinery in a State have to exercise their discretion in accordance with the constitutional convention.

Council of Ministers

The Constitution provides for a Council of Ministers with a Chief Minister at the head to aid and advise the Governor in the exercise of his functions except insofar as he is required by or under the Constitution to exercise his functions in his discretion. The Chief Minister is appointed by the Governor, who also appoints other Ministers on the advice of the Chief Minister. The Council of Ministers is collectively responsible to the Legislative Assembly of the State.

Administrative Units

The principal unit of administration in a State is the district under a Collector and Magistrate. As Collector, he is responsible to the Commissioner who heads a division or to the Board of Revenue (depending upon the practice obtaining in a particular State), and through that agency to the Government, for the proper collection of revenue and for the administration of all matters connected with land other than irrigation, agriculture and forestry in their technical aspects and registration. As District Magistrate, he is responsible for the maintenance of law and order and the criminal administration of the district. The police force in the district with the Superintendent of Police as its head is led by him, although for purposes of disciplinary control and technical supervision, the Superintendent is responsible to the Inspector-General of Police. Besides a number of Assistant or Deputy Collectors and Magistrates who help him in the discharge of his duties, the Collector has also at his disposal the assistance and professional advice of a number of other district officers such as the Executive Engineer, the Deputy Commissioner of Excise, the Civil Supplies Officer and the District Development or Planning Officer.

At the State headquarters, an inter-departmental Committee of Secretaries, headed by the Chief Secretary or the Secretary in charge of Planning, co-ordinates development programmes in a State. Generally, the functions of co-ordination for planning and for the implementation of programmes in the districts are combined in a single officer commonly described as the Development Commissioner. As a rule, a Committee of the State Cabinet under the Chief Minister provides overall guidance and direction. State Planning Boards which include leading non-officials have also been constituted in most of the States.

LEGISLATURE

For every State there is a legislature which consists of the Governor and one House or, as the case may be, two Houses. In the States of Andhra Pradesh, Bihar, Maharashtra, Mysore, Jammu and Kashmir, Tamil Nadu and Uttar Pradesh, the legislature has two Houses known as the Legislative Council and the Legislative Assembly*. In the remaining States, the legislature has only one House known as the Legislative Assembly. Parliament can, by law, provide for the abolition of an existing Legislative Council** or for the creation of one where one does not exist if the proposal is supported by a resolution of the Legislative Assembly concerned.

Vidhan Parishad (Legislative Council)

The Legislative Council of a State comprises not more than one-third of the total number of members in the Legislative Assembly of the State and in no case less than 40 members@. Nearly one-third of the members of the Council are elected by members of the Legislative Assembly from amongst persons who are not members of the Assembly, one-third by electorates consisting of members of municipalities, district boards and other local authorities, one-twelfth by registered teachers in educational institutions not lower than secondary schools

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* Although the Constitution (Seventh Amendment) Act, 1956, provides for the creation of a Legislative Council in Madhya Pradesh, it has not yet been constituted.

** Legislative Councils in West Bengal and Punjab were abolished w.e.f. 1 August 1969 and 7 January 1970 respectively.

@ The Legislative Council of Jammu and Kashmir has, however, only 36 members; *vide* section 50 of the Constitution of Jammu and Kashmir.

TABLE 3.2

ALLOCATION OF SEATS AND STRENGTH OF PARTIES IN STATE LEGISLATURES AS ON 1 JULY 1972

State/Union Territory	No. of seats in the Legislative Council	Legislative Assembly										
		No. of seats	Congress	Congress (O)	Swatantra	CPI	CPI (M)	Jana Sangh	Socialist Party	Other Parties %	Independents @	Seats vacant
1. Andhra Pradesh	90	287	219	—	—	8	1	—	—	45	14	—
2. Assam	—	114	95	—	1	3	—	—	4	2	9	—
3. Bihar	96	318	167	30	1	34	—	25	35	9	16	1
4. Gujarat	—	168	140	16	—	1	—	3	—	—	8	—
5. Haryana	—	81	52	6	—	—	—	2	—	14	7	—
6. Himachal Pradesh	—	68	53	—	—	—	1	5	—	2	7	—
7. Jammu & Kashmir	36	75*	58	—	—	—	—	3	—	5	9	—
8. Kerala	—	133	32	3	—	16	30	—	8	40	2	2
9. Madhya Pradesh	†	296	217	—	—	5	—	46	7	—	19	2
10. Maharashtra	78	270	222	—	—	2	1	5	3	13	24	—
11. Manipur	—	60	18	—	—	5	—	—	3	18	16	—
12. Meghalaya	—	60	9	—	—	—	—	—	—	40	11	—
13. Mysore	63	216	164	24	—	3	—	—	3	1	21	—
14. Nagaland	—	52	—	—	—	—	—	—	—	52	—	—
15. Orissa	—	140	95	—	26	4	2	—	—	8	5	—
16. Punjab	††	104	66	—	—	10	1	—	—	25	2	—
17. Rajasthan	—	184	144	1	11	4	—	8	4	—	12	—

18. Tamil Nadu	63	234	1	14	6	8	—	—	4	197	4	—
19. Tripura	—	60	41	—	—	1	16	—	—	—	2	—
20. Uttar Pradesh	108	425	280	36	2	4	1	38	16	41	5	2
21. West Bengal	++	280	216	2	—	35	14	—	—	9	4	—
22. Delhi	—	56**	44	2	—	3	—	5	—	1	1	—
23. Goa, Daman & Diu	—	30	1	—	—	—	—	—	—	28	1	—
24. Mizoram	—	30	6	—	—	—	—	—	—	24	—	—
25. Pondicherry	—	30	7	3	—	3	—	—	—	15	2	—
Total ..	534	3,771	2,347	137	47	149	67	140	87	589	201	7

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† Not yet formed. ++ Since abolished. * Excluding 25 seats in the territory held by Pakistan. See Section 48 of the Constitution of Jammu & Kashmir. ** Metropolitan Council.

% Other parties include: Andhra Pradesh—Progressive Front 11, AP Progressive Democrats 8, Swatantra Telengana Praja Samiti 4, Majlis Ittihadul Muslimean 3, Republican Party of India 1, People's Democrats 6, Socialist Democratic Front 12; Assam—RCPI 1, PTC 1; Bihar—Hul Jharkand 2, Progressive Hul Jharkand 1, Jharkand (Hiro Group) 1, All India Jharkand Party 4, Soshit Dal 1; Haryana—Vishal Haryana Party 3, Progressive Independents 11; Himachal Pradesh—Lok Raj Party 2; Jammu and Kashmir—Jamat-e-Islami 5; Kerala—Kerala Congress 13, Muslim League 11, RSP 6, KSP 2, KTP 2, Praja Socialist Party 4, Congress Socialist Party 2; Maharashtra—Peasants and Workers' Party 7, Muslim League 2, BKD 1, Shiv Sena 1, Republican Party 2; Manipur—Manipur Peoples' Party 18; Meghalaya—All Party Hill Leaders' Conference 32, Hill State People Democratic Party 8; Mysore—Janta Paksha 1; Nagaland—Nagaland Nationalist Organisation 30, United Democratic Front 22; Orissa—Utkal Congress 6, Jharkand 1, Jana Congress 1; Punjab—Akali Dal 25; Tamil Nadu—DMK 183, Forward Bloc 7, Muslim League 6, Tamil Arasu Kazhagam 1; Uttar Pradesh—BKD 39, SSP 1, Muslim Majlis 1; West Bengal—RSP 3, Gorkha League 2, Socialist Unity Centre 1, Workers' Party 1, Muslim League 1, Praja Socialist Party 1; Delhi—Muslim League 1; Goa, Daman and Diu—Maharashtrawadi Gomantak 18, United Goans (Sequiera Group) 10; Mizoram—Mizo Union 24; and Pondicherry—DMK 15.

@ Independents include the Speakers in the States of Bihar, Kerala, Madhya Pradesh, Mysore, Orissa, Rajasthan and Tamil Nadu; and the Speaker and the Deputy Speaker in Uttar Pradesh.

and a further one-twelfth by registered graduates of more than three years' standing. The remaining members are nominated by the Governor from among those who have distinguished themselves in the fields of literature, science, art, co-operative movement and social service. The Legislative Councils are not subject to dissolution but one-third of their members retire every second year.

Vidhan Sabha (Legislative Assembly)

The Legislative Assembly of a State consists of not more than 500 and not less than 60 members chosen by direct election from territorial constituencies in the State. The demarcation of territorial constituencies is to be done in such a manner that the ratio between the population of each constituency and the number of seats allotted to it, as far as practicable, is the same throughout the State. The term of an Assembly is five years unless it is dissolved earlier.

Table 3.2 gives the strength of the Legislative Councils in States with bicameral legislatures and the number of seats and party position in the Legislative Assemblies in the States as on 1 July 1972. It also shows the position in the Union Territories having Assemblies and in the Delhi Metropolitan Council.

Powers and Functions

The State legislature has exclusive powers over subjects enumerated in List II of the Seventh Schedule to the Constitution and concurrent powers over those enumerated in List III. Ordinances promulgated by the Governor are subject to the approval of the legislature. The financial powers of the legislature include authorisation of all expenditure, taxation and borrowing by a State Government. The Legislative Assembly alone has the power to originate money bills. The Legislative Council can make only recommendations in respect of changes it considers necessary within a period of fourteen days of the receipt of a money bill from the Assembly. This in no way affects the freedom of the Assembly to accept or reject the recommendations of the Council.

Reservation of Bills

Besides possessing the power to give or withhold his assent to bills passed by the legislature, the Governor of a State may reserve any bill for the consideration of the President. Bills relating to subjects like compulsory acquisition of property, estates and jagirs, measures affecting the powers and the position of High Courts, and imposition of taxes on the storage, distribution and sale of water or electricity in inter-State river or river valley development projects should necessarily be so reserved. No bill seeking to impose restrictions on inter-State trade can be introduced in a State legislature without the previous sanction of the President.

Control over Executive

The State legislatures, apart from exercising the usual power of financial control, use all the normal parliamentary devices like questions, discussions, debates, adjournment and no-confidence motions and resolutions to keep a watch over the day-to-day work of the Executive. They also have their Committees on Estimates and Public Accounts to ensure that grants sanctioned by the legislature are properly utilised.

JUDICIARY

High Courts

Every State has a High Court which stands at the head of the State's judicial administration. There are 17 High Courts in the country including two having jurisdiction over more than one State. Among the Union Territories, Delhi alone has a High Court of its own. Each High Court consists of a Chief Justice and such other Judges as the President may, from time to time, deem necessary to appoint. The

Chief Justice of a High Court is appointed by the President in consultation with the Chief Justice of India and the Governor of the State. The procedure for appointing other Judges is the same except that the Chief Justice of the High Court concerned is also consulted. They hold office until they attain the age of 62 and are removable in the same manner as a Judge of the Supreme Court of India. To be eligible for appointment as a Judge, one must have held a judicial office in India for ten years or must have practised as an advocate of a High Court or two or more such courts in succession for a similar period.

The table below gives the seat and territorial jurisdiction of the 17 High Courts in India.

TABLE 3.3
JURISDICTION AND SEAT OF HIGH COURTS

No.	Name	Year of establishment	Territorial jurisdiction	Seat of the Court
1	Allahabad	1866	Uttar Pradesh	Allahabad (Bench at Lucknow)
2	Andhra Pradesh	1954	Andhra Pradesh	Hyderabad
3	Gauhati	1972	Assam, Manipur, Meghalaya, Nagaland, Tripura, Mizoram and Arunachal Pradesh	Gauhati (temporary Benches at Imphal & Agartala)
4	Bombay	1861	Maharashtra	Bombay (Bench at Nagpur)
5	Calcutta	1861	West Bengal & Andaman & Nicobar Islands	Calcutta
6	Delhi	1966	Union Territory of Delhi	Delhi
7	Gujarat	1960	Gujarat	Ahmedabad
8	Himachal Pradesh	1971	Himachal Pradesh	Simla
9	Jammu & Kashmir	1928	Jammu & Kashmir	Srinagar and Jammu
10	Kerala	1956	Kerala & Laccadive, Minicoy and Amindivi Islands	Ernakulam
11	Madhya Pradesh	1956	Madhya Pradesh	Jabalpur (Benches at Indore and Gwalior)
12	Madras	1861	Tamil Nadu & Pondicherry	Madras
13	Mysore	1884	Mysore	Bangalore
14	Orissa	1948	Orissa	Cuttack
15	Patna	1916	Bihar	Patna (temporary Bench at Ranchi)
16	Punjab & Haryana	1947	Punjab, Haryana & Chandigarh	Chandigarh
17	Rajasthan	1949	Rajasthan	Jodhpur

Every High Court has the power to issue to any person or authority and Government within its jurisdiction, directions, orders or writs (including writs which are in the nature of *habeas corpus*, *mandamus*, prohibition, *quo warranto* and *certiorari*, or any of them) for the enforcement of any of the rights conferred by Part III of the Constitution and for any other purpose.

This power may also be exercised by any High Court exercising jurisdiction in relation to the territories within which the cause of action, wholly or in part, arises for the exercise of such power, notwithstanding that the seat of such Government or authority or the residence of such persons is not within those territories.

The High Courts have powers of superintendence over all courts and tribunals within their jurisdiction. They can call for returns from such courts, make and issue general rules and prescribe forms to regulate their practices and proceedings and determine the manner and form in which books, entries and accounts shall be kept.

Subordinate Courts

Subject to minor variations, the structure and functions of the subordinate courts are more or less uniform throughout the country. A State is divided into a number of districts, each under the jurisdiction of a principal civil court presided over by a District Judge. Sometimes he is assisted by Additional District Judges. Subordinate to a District Judge is a hierarchy of different grades of civil judicial courts.

Besides hearing the suits properly so called, the civil courts exercise jurisdiction over several matters such as arbitration, guardianship, marriage, divorce and probate. In another category of cases such as those pertaining to the Land Acquisition Act, Forest Act, Industrial Disputes Act and Rent Acts, the questions affecting civil rights are in the first instance dealt with by the Administrative Officers or by quasi-judicial tribunals or tribunals but their decisions are subject to the appellate authority of the appropriate civil court.

The Code of Criminal Procedure, as amended and revised from time to time, regulates the administration of criminal justice and the constitution of criminal courts. The officer presiding over the district court in civil suits is the Judge of the Sessions Division for criminal cases in that district. Sometimes Additional and Assistant Sessions Judges are appointed to assist him. In some of the States where judiciary has been separated from the executive, there is a hierarchy of different grades of Magistrates subordinate to the Sessions Judge. All these officers are, however, subordinate to the High Court. Even in States where Judiciary has not been separated from the Executive, the decisions of the Magistrates are subject to the appellate authrority of the Sessions Judge or/and of the High Court. The Sessions Judge and the Additional or Assistant Sessions Judges, however, deal with the more serious crimes and take cognizance of cases only when they have been committed to them by the Magistrates after preliminary inquiries.

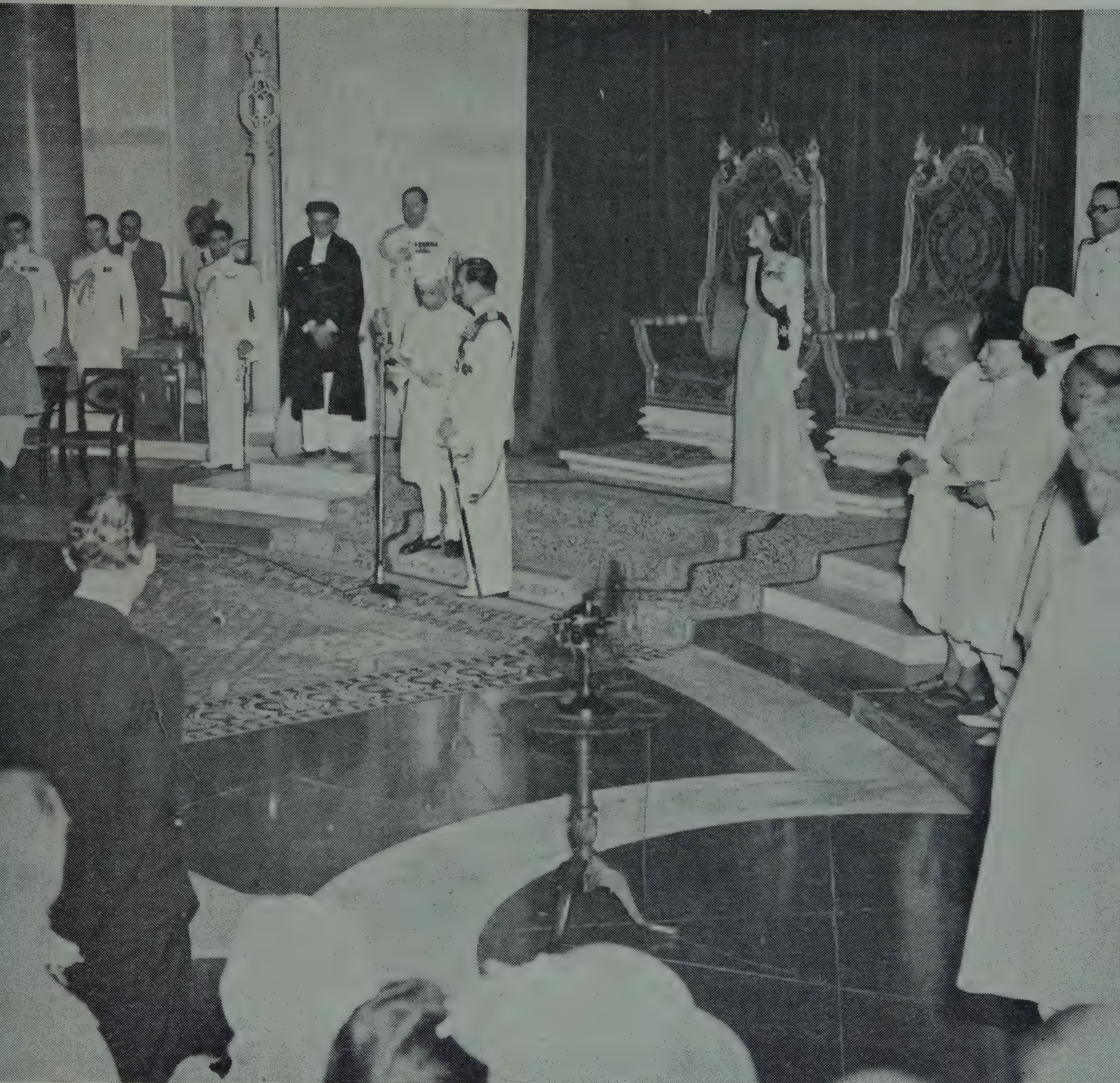
The exercise of preventive jurisdiction is generally entrusted to the Executive Magistrates. The Magistrates of different grades try criminal cases which are not triable by the Sessions Court. In respect of all judicial acts the Magistracy including the District Magistrate are subject to the control of the High Court.

In the cities of Madras, Bombay and Calcutta, Presidency Magistrates deal with the magisterial cases and Benches of Justices of the Peace or Honorary Magistrates dispose of less important cases.

Separation of Judiciary from Executive

Complete separation of the Judiciary from the Executive, which is a Directive Principle of State Policy, has been carried out in 10 States and 3 Union Territories. These are Punjab, Haryana, Kerala, Maharashtra, Gujarat, Mysore, Jammu & Kashmir (except Poonch and Rajouri Districts), Tamil Nadu, Orissa, Madhya Pradesh, Chandigarh, Delhi and Laccadive, Minicoy and Amindivi Islands. Partial separation has been effected in Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Rajasthan, Uttar Pradesh and West Bengal.

TWENTY-FIVE YEARS IN PICTURES



15 August 1947. India becomes independent. Jawaharlal Nehru being sworn in as the first Prime Minister of independent India.

Even before the Government could settle down, it was faced with the gigantic problem of rehabilitating millions of persons who had been uprooted from their homes in Pakistan. (Above) Displaced persons from Pakistan being carried to different parts of the country for rehabilitation and resettlement.

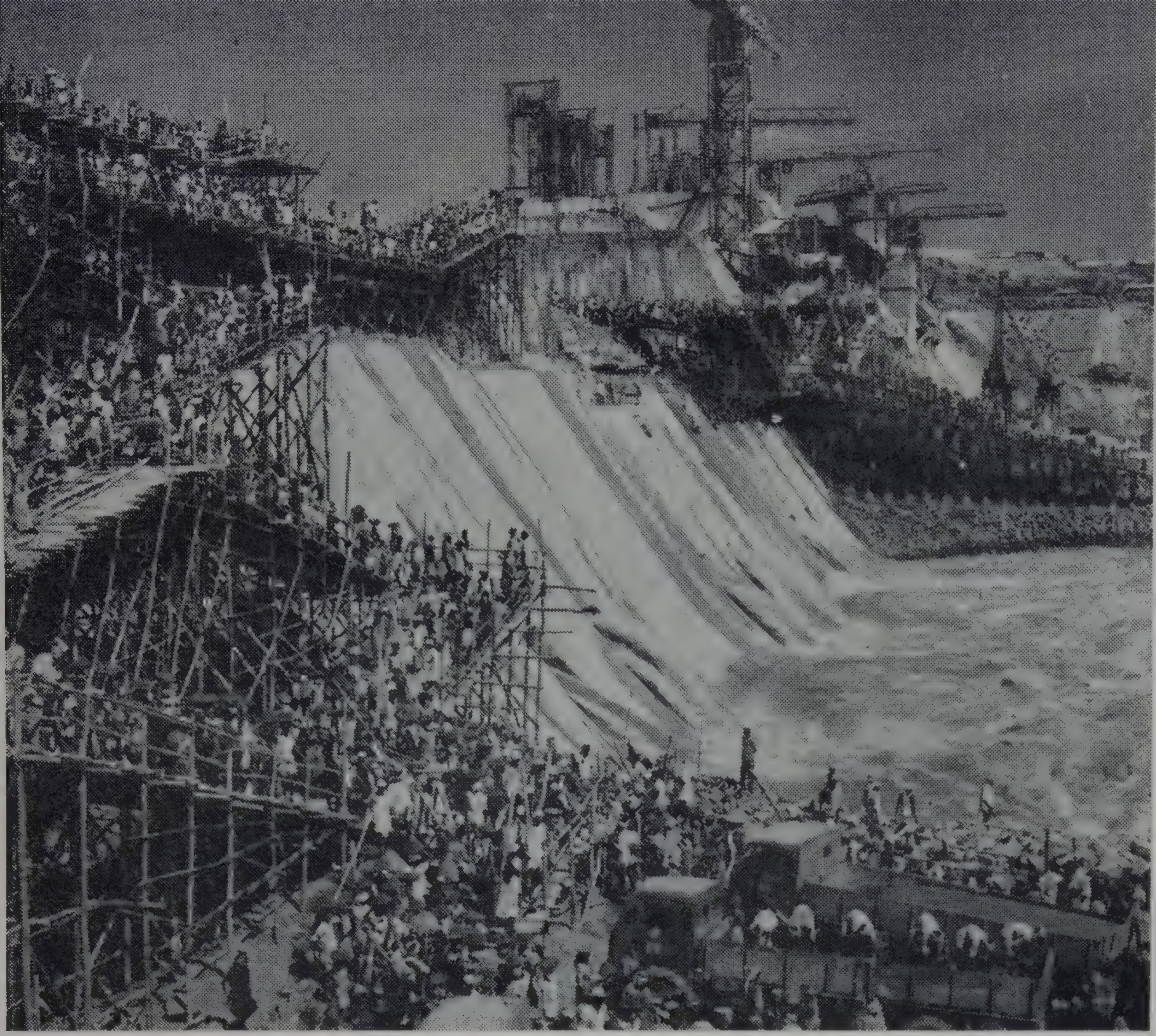
Another problem which had to be tackled urgently was the need to achieve political consolidation and national unity. By patient negotiations and statesmanship, Sardar Vallabhbhai Patel, Minister of Home and States, persuaded more than 550 Princely States to accede to the Indian Union. (Below) Sardar Patel speaking at the inauguration of Saurashtra State at Jamnagar on 15 February 1948.

Even while the two immediate problems of rehabilitation and political consolidation were being tackled, the Constituent Assembly went ahead with the work of framing a Constitution for the country. The Constitution came into force on 26 January 1950 and India became a sovereign democratic republic. (Above) Dr Rajendra Prasad, President of the Constituent Assembly, signing the Constitution after its adoption by the Constituent Assembly.

The first general elections under the Constitution were held in 1951-52. The electorate numbered nearly 18 crores, making India the world's largest democracy. (Below) People line up in a village to vote.

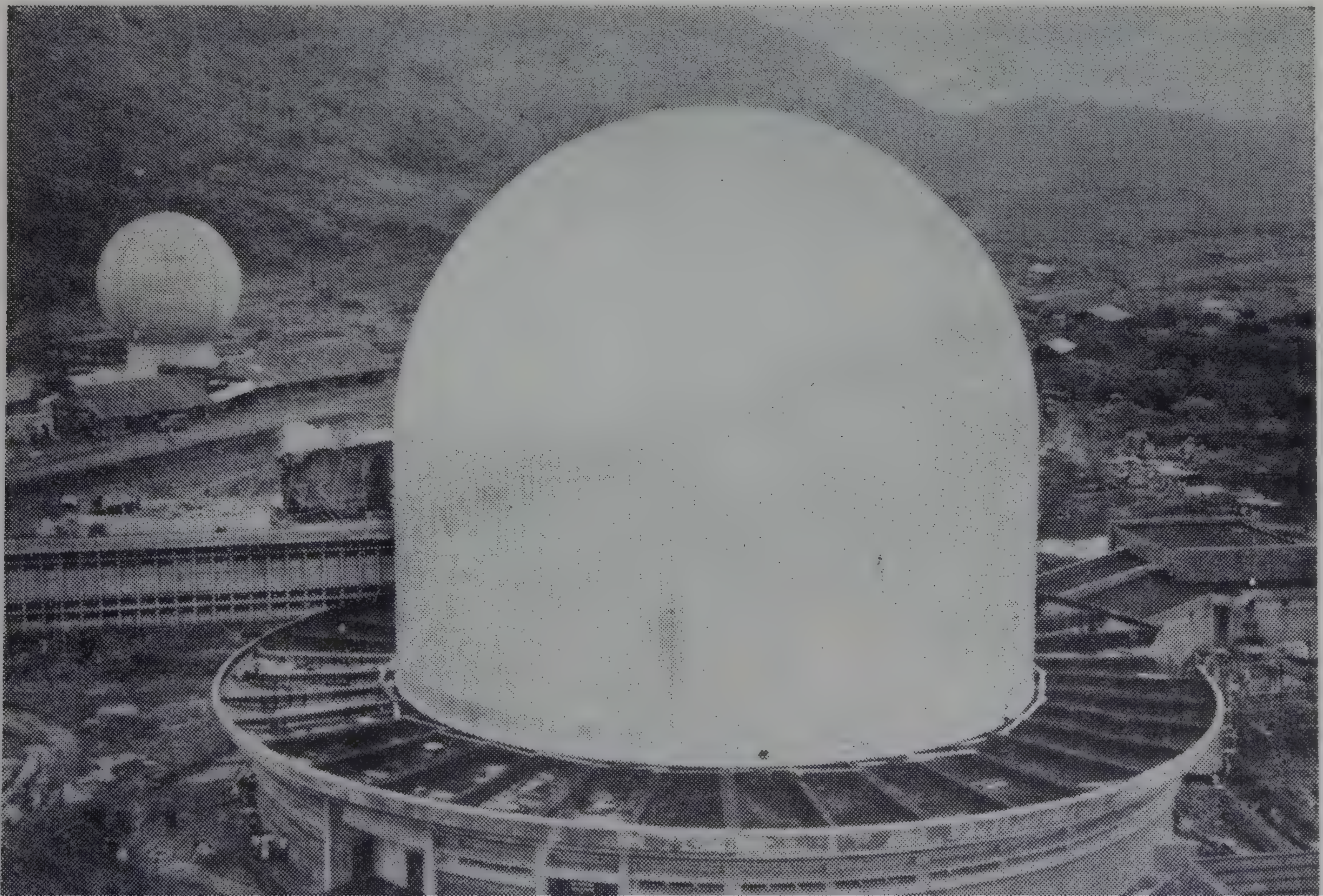
The Constitution paved the way for economic development. The process of planned economic development was set in motion with the launching of the First Five Year Plan in 1951. (Above) A meeting of the planners in progress in New Delhi.

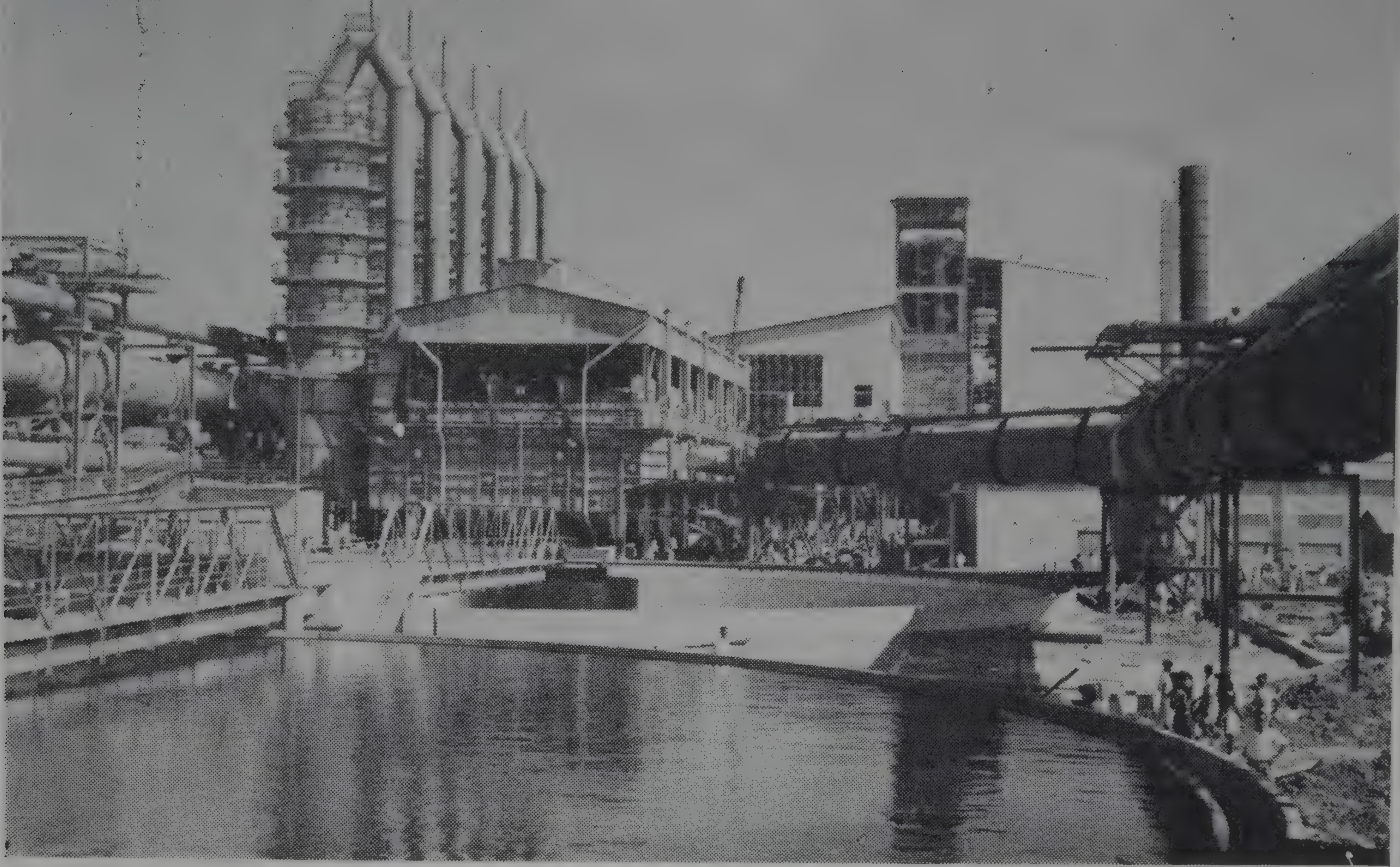
It was recognised that without a substantial increase in the production of food and raw materials, it would be impossible to make all round progress. Agriculture was, therefore, given the top-most priority. Efforts have been made to increase productivity by introducing better seeds, fertilizers, pesticides and agricultural implements and machinery. (Below) A field being prepared for cultivation at a state farm in Rajasthan.



Many of the country's rivers, known for their seasonal fury and waywardness, have been harnessed. Giant river-valley projects have come up all over the country. (Above) Picture of Nagarjunasagar project when construction work on the dam was at its peak. The dam has since been completed.

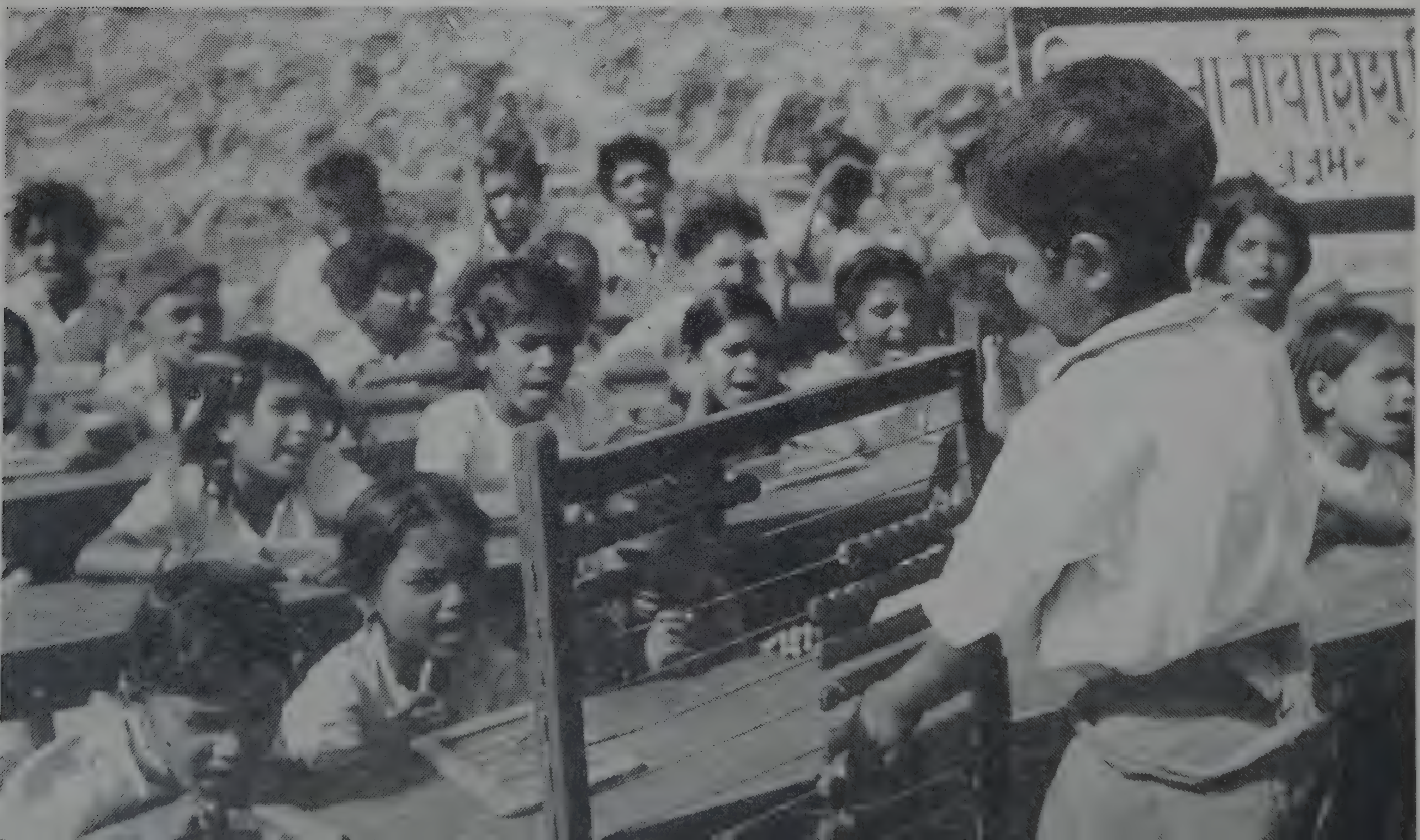
The projects not only provide water for our parched lands, they also generate power for use in houses, farms and factories. Keeping pace with the nuclear age, projects have also been launched to produce atomic power. (Below) Nuclear power station at Tarapur.





Thousands of industrial units have been set up to make the country self-reliant in industrial production. Steel, which is a basic industry, has been given priority. (Above) Rourkela steelworks, one of the four giant plants set up in the country since Independence.

With about 85 per cent of people unable to read or write, catching up with the pace of science and technology was a distant dream. Efforts have, therefore, been made to eradicate illiteracy by opening thousands of new schools, most of them in rural areas. Today, primary education is free and four out of every five children under eleven are at school compared to one out of three in 1947. (Below) A primary class in progress.



In June 1964, Lal Bahadur Shastri became the Prime Minister of the country after the passing away of Jawaharlal Nehru. He led the country when it was attacked by Pakistan in the year 1965. (Above) Lal Bahadur Shastri with the Soviet Premier and Pakistani President at Tashkent after the signing of the Tashkent Agreement between India and Pakistan.

Shrimati Indira Gandhi succeeded Lal Bahadur Shastri as the Prime Minister in January 1966 and was re-elected in March 1967 and again in March 1971. She led the country to a decisive victory in December 1971 over Pakistan, which had attacked India for the fourth time since Independence. (Below) Lt.-General A.A.K. Niazi, Commanding Officer of the Pakistani forces, signing the instrument of surrender at Dacca on 16 December 1971.

Prime Minister Indira Gandhi addressing the midnight session of Parliament in New Delhi on 14-15 August 1972.

THE UNION TERRITORIES

Under article 239(1) of the Constitution, subject to laws enacted by Parliament, Union Territories are administered by the President acting, to such extent as he thinks fit, through an administrator appointed by him.

The administrators of Delhi, Goa, Daman and Diu, Mizoram and Pondicherry are designated as Lt.-Governors while the administrators of Andaman and Nicobar Islands, Arunachal Pradesh and Chandigarh are designated as Chief Commissioners. The Lt.-Governor of Goa, Daman and Diu is concurrently the Administrator of Dadra and Nagar Haveli. The Lacadive, Minicoy and Amindivi Islands have a separate administrator.

Under the Government of Union Territories Act, 1963, legislative assemblies and Councils of Ministers have been constituted in Goa, Daman and Diu, Mizoram and Pondicherry. The Delhi Administration Act, 1966, provides for a Metropolitan Council and an Executive Council for the Union territory of Delhi. Arunachal Pradesh has a Pradesh Council and the administrator may appoint not more than five members of this Council as Counsellors whom he may consult on matters relating to the administration of the territory.

The Legislative Assemblies in the Union Territories may make laws with respect to matters in the State field, namely, those enumerated in List II or List III in the Seventh Schedule insofar as they are applicable in relation to Union Territories. Parliament can also make laws with respect to such matters for the Union Territories.

The Metropolitan Council in Delhi has the right to discuss and make recommendations about matters insofar as they relate to Delhi.

ZONAL COUNCILS

The States and Union Territories on the mainland except those in the north-eastern region are grouped into zones. Each zone has a high-level advisory body known as the Zonal Council which provides the forum for discussing matters of common interest to the States and Union Territories in that zone. The States of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab and Rajasthan and the Union Territories of Chandigarh and Delhi are in the Northern Zone. The Central Zone comprises the States of Madhya Pradesh and Uttar Pradesh while the States of Bihar, Orissa and West Bengal are in the Eastern Zone. The States of Gujarat and Maharashtra and the Union Territories of Goa, Daman and Diu, and Dadra and Nagar Haveli are in the Western Zone. The Southern Zone comprises the States of Andhra Pradesh, Kerala, Mysore and Tamil Nadu and the Union Territory of Pondicherry.

For the north-eastern region there is a body similar to the Zonal Council to deal with matters of common interest to the States and Union Territories in that region, namely, the States of Assam, Manipur, Meghalaya, Nagaland and Tripura and the Union Territories of Arunachal Pradesh and Mizoram. The North-Eastern Council which came into being on 8 August 1972, has certain additional functions. It has to formulate a unified and co-ordinated regional plan (which is in addition to the State Plans) covering matters of common importance. In respect of projects or schemes intended to benefit two or more States, the Council has to recommend the manner in which they may be executed, managed or maintained, their benefits shared and the expenditure incurred. The progress of implementation of the Plan and the expenditure are supervised by the Council. The Council has to review from time to time the measures taken by States for maintenance of security and public order and, as and when necessary, recommend further measures in this behalf.

LOCAL GOVERNMENT

Local self-governing institutions which are important in a democratic society are broadly classified into two categories—urban and rural. In the big cities they are known as Corporations, and in medium and small towns as Municipal Committees/Councils. In rural areas a three-tier structure of administration known as 'Panchayati Raj' has been introduced in many States.

Corporations

The Corporations, established under specific Acts of the State Legislatures are headed by elected Mayors. The administration of a city under a Corporation is entrusted to three authorities: (i) General Council of the Corporation; (ii) Standing Committees of the Council; and (iii) Commissioner or Executive Officer. The General Council appoints all the officers of the Corporation except the Commissioner who is usually appointed by the State Government. The Standing Committees elected by the Council carry out the main work of the administration covering taxation and finance, engineering works, health and education. The executive power of the Corporation vests in the Commissioner, who prescribes the duties of the various establishments and supervises their work. In addition to matters connected with the safety, health, education and other conveniences of the citizens, the jurisdiction of the Corporation also extends to the maintenance of streets and bridges, avenues and parks, recreation grounds and markets.

Municipal Councils and Committees

Municipalities with elected Presidents also function through committees. All the members of a municipality constitute its general body which discusses and decides all questions of policy and important details of municipal administration. The powers of passing the budget, imposing taxation, voting expenditure and making rules and regulations vest in the general body. The day-to-day work of the municipality is carried on by an executive officer, drawn either from the State cadre of municipal executive officers or from the State Civil Service.

Local Self-Government in Districts

The system of Panchayati Raj or democratic decentralisation was introduced in October 1952. It involves a three-tier structure of local self-governing bodies at the village, block and district levels. Specific powers and functions in the field of development and local administration have been assigned to Panchayati Raj institutions. Panchayati Raj has been implemented in all the States except Madhya Pradesh, Kerala, Jammu and Kashmir and Nagaland.

Village Panchayats

Panchayats are elected by Gram Sabhas consisting of the entire adult population of the village. Elected by and from among the villagers, they are responsible for agricultural production, rural industries, medical relief, maternity and child welfare, management of common grazing grounds, maintenance of village roads, streets, tanks and wells and provision of sanitation, drainage, etc. In some places Panchayats also look after primary education, the maintenance of village records and the collection of land revenue. For building up funds they levy tax on houses and lands, fairs and festivals and sale of goods, impose octroi duties, and build up remunerative community assets.

While the administrative, civil and executive functions at the village level are attended to by the Panchayats, the judicial functions are exercised by Nyaya Panchayats. Nyaya Panchayats are competent to try cases involving minor offences under the Indian Penal Code and other special and local laws. Their powers of punishment are limited to the imposition of moderate fines, and they employ simple and summary procedure for the disposal of cases. They have also been given limited powers under the Civil Procedure Code. Legal practitioners are not permitted to appear before them.

4 DEFENCE

The supreme command of the Armed Forces is vested in the President of India, though the responsibility for national defence is that of the Cabinet. All important questions having a bearing on defence are decided by the Cabinet Committee on Political Affairs, which is presided over by the Prime Minister. The Defence Minister is responsible to Parliament for all matters concerning the Defence Services. The administrative and operational control of the Armed Forces is exercised by the Ministry of Defence and the three Services Headquarters. The Ministry of Defence acts as the central agency to ensure that the development of the three Services is co-ordinated, Government decisions on policy matters are transmitted to the three Services Headquarters and implemented, and financial sanction for defence expenditure is obtained from Parliament.

ORGANISATION The three Services function under their respective Chiefs of Staff. As on 15 January 1973 the Chiefs of Staff were:

Chief of the Army Staff	General G.G. Bewoor
Chief of the Naval Staff	Admiral S.M. Nanda
Chief of the Air Staff	Air Chief Marshal O.P. Mehra

Army The Army Headquarters, located in New Delhi, functions under the Chief of the Army Staff. He is assisted by the Vice Chief of the Army Staff and four other Principal Staff Officers—Deputy Chief of the Army Staff, Adjutant-General, Quartermaster-General and Master-General of Ordnance—and two Heads of Branches *i.e.* Military Secretary and Engineer-in-Chief.

The Army is organised into five Commands—Western, Eastern, Northern, Southern and Central—each under a General Officer Commanding-in-Chief of the rank of a Lieutenant-General. The Commands are divided into Areas and Sub-Areas. An Area is commanded by a General Officer Commanding of the rank of a Major General and a Sub-Area by a Brigadier.

The Army consists of a number of arms and services. These are Infantry, Armoured Corps, Regiment of Artillery, Corps of Engineers, Corps of Signals, Army Service Corps, Army Ordnance Corps, Army Medical Corps, Army Dental Corps, Corps of Electrical and Mechanical Engineers, Army Education Corps, Remounts and Veterinary Corps, Army Postal Service Corps, Corps of Military Police, Intelligence Corps and Defence Security Corps.

The sanctioned strength of all ranks of the Army is 8.28 lakhs.

Navy Operational control of the Navy is exercised by the Naval Headquarters in New Delhi through a chain of commands.

At the Headquarters, the Chief of the Naval Staff is assisted by five Principal Staff Officers, namely, the Vice Chief of the Naval Staff, Chief of Personnel, Chief of Material, Chief of Logistics and Assistant Chief of Naval Staff.

The Navy is organised into three Commands: Western Naval Command under the Flag-Officer Commanding-in-Chief, Western Naval Command, Bombay, Eastern Naval Command, under the Flag-

Officer Commanding-in-Chief, Eastern Naval Command, Visakhapatnam and Southern Naval Area under the Flag-Officer Commanding, Southern Naval Area, Cochin.

The Navy has two Fleets—the Western Fleet and the Eastern Fleet.* The two Fleets consist of the aircraft-carrier *INS Vikrant* (Flagship of the Navy), two cruisers, two destroyer squadrons, a number of frigate squadrons, including some of the latest types of anti-submarine and anti-aircraft frigates, a squadron of anti-submarine patrol vessels, three mine-sweeping squadrons, conventional type submarines, a submarine depot ship and fast boats carrying surface-to-surface guided missiles. A squadron of Sea-King helicopters has been acquired to augment the air component of the aircraft-carrier *INS Vikrant.* The two Fleets have also some survey ships, a fuel tanker and some auxiliary craft. The survey unit of the Navy carries out survey of India's coast and approaches to the harbours. A naval organisation, *INS Jarawa*, has been set up at Port Blair in the Andaman and Nicobar Islands, with necessary transport and communication facilities, to patrol the various islands in the area.

A naval dockyard is being developed at Visakhapatnam on the east coast. Work is also in progress to develop Marmugao on the west coast as a full-fledged naval base. The first phase of modernisation and expansion programme of the Naval Dockyard, Bombay, has been completed and the second phase is under way. The development of a naval transit base at Okha has also been taken up.

The Navy has control of all coastal batteries.

Since 1964, India has been constructing her own naval craft. A survey ship and three defence boats have already been commissioned. Three more defence boats, a bucket dredger and two hopper barges, are under construction. The first indigenously built frigate, *Nilgiri*, was commissioned on 3 June 1972. The Navy is being further strengthened with the purchase of vessels at an estimated cost of Rs 41.61 crores during 1972–73.

Air Force

The Indian Air Force is organised into five Commands. They are: Western Air Command, Central Air Command, Eastern Air Command, Training Command and Maintenance Command.

At the Air Headquarters in New Delhi, the Chief of the Air Staff is assisted by four Principal Officers, namely, Vice Chief of the Air Staff, Deputy Chief of the Air Staff, Air Officer-in-Charge Administration and Air Officer-in-Charge Maintenance. Each of them controls a group of Directorates.

The Air Force fleet, which is made up of 45 squadrons, consists of a variety of fighter, bomber, transport and maritime reconnaissance aircraft. Among the fighter aircraft are SU–7s, Mysteres, Hunters, Gnats, MiG-21s and HF–24s. Canberras comprise the bomber fleet.

The transport fleet, which till some years ago consisted mainly of Dakotas and Fairchild Packets, has been modernised and now includes Otters, AN–12s, Caribous and Indian-built HS–748s. Maritime reconnaissance fleet consists mainly of MI–4s and Allouette–III helicopters. Indian-built HT–2 and HJT–16 (Kiran), T6G Texan, Dakotas and Vampires are used for training purposes.

EXPENDITURE

Table 4.1 shows the trend in total defence expenditure since 1960–61, its percentage to the total expenditure of the Union Government and its percentage to the national income.

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*Established on 18 November 1971.

TABLE 4.1
DEFENCE EXPENDITURE

Year	Total* defence expenditure (Rs crores)	Total* expenditure of Govt. of India (Rs crores)	Defence expenditure as percentage of total Govt. expenditure	National income at current prices (Rs crores)	Defence expenditure as percentage of national income
1960–61	280.94	1,855.54	15.1	13,294	2.1
1961–62	312.49	2,148.68	14.5	14,050	2.2
1962–63	473.91	2,794.63	17.0	14,873	3.2
1963–64	816.12	3,452.76	23.6	17,094	4.8
1964–65	805.80	3,955.19	20.4	20,061	4.2
1965–66	884.76	4,223.05	21.0	20,621	4.3
1966–67	908.59	5,304.40	17.1	23,903	3.8
1967–68	968.43	5,074.91	19.1	28,374	3.4
1968–69	1,033.19	5,022.66	20.6	28,678	3.6
1969–70	1,100.88	5,580.99	19.7	31,174	3.5
1970–71	1,199.28	6,102.30	19.7	N.A.	N.A.
1971–72 (RE)	1,410.97	7,522.80	18.8	N.A.	N.A.
1972–73 (BE)	1,408.36	7,312.60	19.3	N.A.	N.A.

* Includes both revenue and capital accounts.

N.A.—Not available. RE—Revised estimates. BE—Budget estimates.

TRAINING INSTITUTIONS

National Defence Academy

The National Defence Academy, Khadakvasla, conducts a three-year combined basic training course for potential officers of the three Services after which they receive specialised training at their respective Service establishment. Besides basic military training, the cadets are also trained up to the degree level of an Indian university. Admissions to the Academy are made on the basis of a qualifying bi-annual written examination conducted by the Union Public Service Commission at different centres in the country, followed by an interview before a Services Selection Board. Boys who have passed the Higher Secondary or an equivalent examination and are between 16 and 18½* years of age on the first day of the month in which the course starts are eligible for admission. Cadets must be unmarried and remain so during the period of their stay at the Academy.

All the expenses of the cadets while at the Academy, except the pocket expense of Rs 30 per month, are met by the Government. Where the monthly income of parents is less than Rs 300, even this expense is borne by the Government.

Defence Services Staff College

The Staff College at Wellington provides training for grade staff appointments to serving officers on an inter-Services basis. About 200 officers from the three Services are trained every year. The capacity of the College is being increased in phases to reach 265 by 1975.

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*The upper age limit will be 18 years after January 1974.

National Defence College

The National Defence College in New Delhi trains senior officers of the three Services and senior civilian officers of the Central Services in politico-military studies. The aim of the training is to prepare them for higher responsibilities in the field of national security. The College also serves as a meeting ground for senior Service and civilian officials to get together and exchange ideas.

Armed Forces Medical College

The Armed Forces Medical College, Poona, besides imparting training to newly commissioned medical officers, runs refresher courses for medical officers of the Armed Forces as well as specialist courses in hygiene, X-ray, blood-transfusion and pathology. It also runs an MBBS course and a degree course in nursing.

Army Colleges and Schools

The Indian Military Academy, Dehra Dun, is the premier centre for training officers of the Army. The main source of entry into the Academy is the National Defence Academy. Cadets passing out of the Academy at Khadakvasla receive one year's training at Dehra Dun before being commissioned. The other categories of entrants in higher age groups are those who have qualified in the competitive entrance examination of the Union Public Service Commission and the Services Selection Board for two years' training, graduate cadets of the NCC for a year and a half, other graduates selected for specialised commissions in the technical arms for a year and serving regular or Territorial Army personnel—JCOs and NCOs—for two years.

The Army Cadet College in Poona trains selected Other Ranks from the Army to acquire officer-like qualities and general academic education for entry to the Military Academy for the grant of commissions.

The Officers' Training School at Madras trains officers who are granted Short Service Commissions in the Army.

The College of Military Engineering, Kirkee, imparts training to officers and Other Ranks in all aspects of military engineering. Longer courses of over two years' duration are also conducted to train officers up to the degree standard. The Army College of Telecommunication Engineering at Mhow imparts basic and advanced technical training in telecommunications and signal tactics.

The Armoured Corps Centre and School, Ahmednagar, conducts training courses for regimental instructors, squadron commanders and regimental commanders of the corps. The School of Artillery at Deolali provides training in field, anti-tank and anti-aircraft artillery. The College of Combat at Mhow imparts training in the higher direction of war to officers of the Army. The Infantry School at Mhow conducts courses in the tactical and administrative handling of infantry units and sub-units for senior officers and junior commanders of all corps in the Army. The Ordnance School at Jabalpur imparts specialised corps training in the identification and preservation of all items, including ammunition and explosives, stocked by ordnance depots. The Institute of Defence Management at Secunderabad trains Service and civilian officers in modern defence management techniques.

Some of the other Army training centres and schools are: The Army Service Corps School, Bareilly; the Remounts and Veterinary Centre and School, Meerut; the School of Physical Training, Poona; the Army and Air Transport Support School, Agra; the School of

Mechanical Transport, Faizabad; the Corps of Military Police Centre and School, Faizabad; the Education Centre and College, Pachmarhi; the Military School of Music, Pachmarhi; and the College of Electrical and Mechanical Engineering, Trimulgherry, Secunderabad.

Naval Training Centres

Except for highly specialised technical courses, training of all officers and men in the Navy is conducted at naval training centres located at Cochin, Bombay and Visakhapatnam. The centres at Cochin, *INS Venduruthy* and the Naval Air Station *Garuda*, impart training in gunnery, communications, navigation, torpedo and anti-submarine and flying.

Mechanical engineers and artificers are trained at *INS Shivaji* in Lonavla (Maharashtra). A new Engineering College has been started there to train junior engineers and electrical officers of the Service.

INS Valsura, Jamnagar, trains officers and men of the Electrical Branch of the Service. With most of the ships now fitted with complicated electronics equipment, training has been geared to the present requirements of the Service.

New recruits joining the Navy are trained at *INS Circars*, Visakhapatnam and on completion of their courses become sailors. Officers and men of the Supply and Secretariat Branch are trained at *INS Hamla* in Bombay. Sea training is imparted by the two Fleets.

To meet the increasing training requirements, a naval academy has been established at Cochin. A Sailors' Training establishment is being set up at Dabolin in Goa. The Boys' Training establishment, now at Visakhapatnam, is to be moved to Chilka Lake in Orissa.

Air Force Colleges and Schools

The basic flying training for pupil pilots is imparted at the Pilot Training School and the intermediate training at the Air Force Flying Academy, Hyderabad. Advanced flying and conversion training on jets and multi-engined aircraft is conducted at the Fighter Training and Transport Training Wings of the Air Force at Hyderabad and Yelahanka. Pupil navigators also receive their initial training at Hyderabad.

The Air Force Administrative College, Coimbatore, trains non-technical officers in various ground duties. Technical officers are trained at the Air Force Technical College, Jalahalli. Schools at Sambre near Belgaum train airmen in accounting, equipment, general office duties, medical assistance, telephone operations, drill instruction, police duties, music and catering, while those at Jalahalli train airmen in higher signal, electrical and instrument trades. Flying instructors are trained at a school at Tambaram. Another school, located at Tambaram, trains airmen in technical trades. A school for higher staff studies in combined land-air warfare has been set up at Hyderabad. Paratroopers for air-borne units of the Army are trained at the Paratroopers Training School, Agra.

A composite Air Force Academy near Hyderabad has started functioning. Training, at present, is being given in the General Duties (Pilots) courses in the intermediate stage. When fully operational in another three years, the Academy will start giving training to all aircrew and Ground Duties (non-technical) officers.

Medical and aircrew officers receive specialised training at the Institute of Aviation Medicine, Bangalore.

Rashtriya Indian Military College

Run on the lines of public schools, the Rashtriya Indian Military College, Dehra Dun, prepares future officers for the three Services by imparting preliminary pre-cadet training to such pupils who desire subsequently to choose a military career. It serves as a feeder to the National Defence Academy.

Sainik Schools

Like the Rashtriya Indian Military College, 17 Sainik Schools prepare boys in the age group 9–18 for the entrance examination of the National Defence Academy. So far, 1,105 boys from these schools have been admitted to the Academy.

DEFENCE SUPPLIES, PRODUCTION AND RESEARCH

A substantial part of the defence stores needed by the Services is now being developed and produced in the country. The responsibility for this has been entrusted to two separate Departments—Defence Supplies and Defence Production—in the Ministry of Defence. The Department of Defence Supplies handles problems of indigenisation of defence requirements by making use of the facilities available in the civil sector. The Department of Defence Production organises, directs and co-ordinates production of material and equipment required by the Armed Forces. It carries out its responsibility through three Directorates—those of Planning and Co-ordination, of Inspection and of Ordnance Factories—the Research and Development Organisation and eight public sector undertakings.

The Defence Production Board advises the Government on the establishment of installations for production of new items, and policy for stock-piling of raw materials.

Ordnance Factories

Twenty-eight ordnance factories, which are part of the Production Organisation, turn out a wide range of defence items such as arms, ammunition, chemicals, general stores and vehicles for the Armed Forces. There are two more factories, namely, the Heavy Vehicles Factory at Avadi and the Accelerated Freeze Dried Meat Factory at Tundla. The former manufactures Vijayanta tanks and the latter produces freeze dried meat for troops deployed at high altitudes. The ordnance factories now meet the entire requirements of the Army in respect of infantry weapons.

A comprehensive five-year plan is currently being implemented to modernise the ordnance factories to meet the increasing requirements of the Services and to achieve self-sufficiency in the production of defence stores. A number of projects have made substantial progress. At the Ordnance Factory, Chanda, production of a new variety of smoke ammunition and other ammunition store is in progress. At the Ordnance Factory, Ambajhari, production has already started. Production of bridges and mortar bomb components and other items is being progressively taken up. A major explosives project has been completed. A new project for the manufacture of propellants and Ballistites is making progress. A new plant for the manufacture of nitric acid and a modern TNT plant are also being provided. Development work on a field gun and carriage is nearing completion. Some new items of vision and sighting instruments as well as optical instruments for a missile have already been produced. Production of new ammunition items like jumping mines, anti-submarine projectiles has also been started.

Over the years the value of production in the ordnance factories has gone up from about Rs 5 crores in 1947-48 to Rs 130 crores in 1971-72.

Defence Undertakings in Public Sector

Eight public sector undertakings controlled by the Department of Defence Production turn out defence equipment for the Armed Forces. The largest of these undertakings is the Hindustan Aeronautics Ltd. (HAL). Set up in October 1964, it has four constituent units, namely, the Bangalore Division, the MiG complex, comprising the factories at Nasik, Koraput and Hyderabad, the Kanpur Division and the Lucknow Division for the manufacture of aircraft accessories. It is currently manufacturing the jet MiG-21, the jet fighter Gnat aircraft, the jet trainer HJT-16 (Kiran); the Allouette helicopters and the transport aircraft HS-748 and air-to-air missiles.

The Bharat Electronics (BEL) at Bangalore, which started production in 1956 with only two electronic items, has diversified its production and now manufactures over 70 different items of equipment. These range from tiny transmitters to highly sophisticated radars. A new unit of BEL is being set up at Ghaziabad for the production of electronic equipment to meet the needs of an air defence ground environment system.

The Mazagon Dock, Bombay, the Goa Shipyard and the Garden Reach Workshops, Calcutta, are building ships for the Navy. The Mazagon Dock has already built one Leander class frigate, *Nilgiri*. Two more are under construction. Six such ships have been ordered by the Navy.

The Bharat Dynamics Ltd. at Hyderabad, which was set up in July 1970 for manufacturing anti-tank missiles, has gone into production.

Bharat Earthmovers Ltd. manufactures broad gauge railway coaches and heavy earth-moving equipment.

Praga Tools at Hyderabad manufactures drilling machines, tools and cutter grinders, surface grinders, milling machines and machine-tool accessories, screw coupling, auto diesel spares and forgings and castings.

Research and Development

The Research and Development Organisation, created in 1958. broadly aims at furnishing the Armed Forces with newer and more efficient equipment. To achieve this, it makes use of basic, applied and operational research for the fabrication of instruments, weapons, ammunition, engineering stores and telecommunication equipment. (For details, see chapter "Scientific Research")

TERRITORIAL ARMY

The Territorial Army, which was raised in October 1949, is designed to give the youth of the country an opportunity for receiving military training in their spare time and to serve the country in times of emergency by providing units to the regular Army. Membership of the Territorial Army does not involve service outside India.

Any able-bodied national of India between the ages of 18 and 35 (with relaxation in the upper age limit for entry into certain technical units) and possessing the requisite qualifications is eligible to join the Territorial Army as an officer or Other Rank.

A limited number of appointments on the permanent staff, with a tenure of three to five years, are offered to all ranks of the Territorial Army provided they possess the necessary experience and qualifications. Territorial Army personnel are also entitled to the award of decorations and medals.

The authorised strength of the Territorial Army on 1 April 1972 was 50,000 and the actual strength 42 000.

NATIONAL CADET CORPS

The National Cadet Corps strives to stimulate interest among the youth in the defence of the country so as to build up a reserve of manpower to enable the Armed Forces to expand rapidly. The participants have, however, no liability for active military service. Participation in the NCC, which was made compulsory for all able-bodied college students in 1964, is now entirely voluntary except in two of the Indian universities. A certain percentage of the total intake of candidates for commissioned ranks in the Army, Navy and Air Force, on the basis of direct entry to the Armed Forces training institutions, is reserved for NCC cadets of the three Services.

The NCC consists of three divisions; Senior, Junior and Girls. The strength of the Corps on 1 April 1972 was 13,59,000. Of this, 6,66,000 were in the Senior Division and 6,93,000 in the Junior Division. The number of girls on that date was 66,000 in the Senior Division and 65,000 in the Junior Division.

INDO-PAK WAR

Following its failure to subjugate the people of Bangladesh through a brutal repression which resulted in the killing of about 30* lakh Bengalis and a refugee influx of about 1 crore into India, Pakistan turned its war in Bangladesh into a full-fledged war against India. On 3 December 1971 it launched a pre-emptive attack on Indian airfields and on 4 December the military rulers of Pakistan put their country in a state of war with India. India, left with no choice, ordered its forces to strike back at the aggressor. The war, which was fought on both the Eastern and Western fronts, lasted 14 days. In the East, it was brought to a close on 16 December, when over 75,000† Pakistan military and para-military personnel laid down their arms in one of the biggest surrenders in military history. In the West, it ended on 17 December with India's unilateral ceasefire, which Pakistan first rejected but later accepted.

The successful completion of the compaign of liberation of Bangladesh within a period of 12 days, across a vast expanse of land, criss-crossed by rivers and rivulets, inhabited by nearly 7.5 crore people, and held down by over 75,000 regular and para-military forces of Pakistani origin, will rank as a remarkable feat in the annals of military history. The strategy of the Armed Forces of bypassing the main cities to avoid civilian casualties and to prevent damage to national assets surprised the enemy. The speed of the flanking movement and the determination with which they were pressed rendered the long prepared positions of the enemy untenable.

On the Western front, Pakistan's massive offensive thrusts in the Poonch, Chhamb and Rajasthan sectors were effectively blunted. The war was carried into the enemy's territory and significant gains were made in the Barmer, Kutch and Samba-Pathankot Sectors.

The Indian Air Force achieved mastery of the vast air space within the first 24 hours by completely annihilating the Pakistan Air Force in Bangladesh. The supply as well as escape routes by air were completely sealed. In the West, the Indian Air Force struck without interruption, by day and by night, at the aircraft on the ground, at airfield stations, runways and radar stations. Troop concentrations were broken up and armoured columns scattered, important installations of military value were severely damaged and the transportation system was disrupted.

The Navy's role was no less significant. The Eastern Naval Command deployed the aircraft-carrier *Vikrant*, with supporting ships and submarines, to immobilise the port facilities at Chittagong and in the Khulna-Chulna-Mongla complex and to damage airfields and military installations on the southern periphery. Amphibian landings

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*Sheikh Mujibur Rahman's Press statement in Dacca on 14 January 1972.
†Another 16,000 civilians, including Police, were also taken prisoner.

were carried out at Cox's Bazar to seal off the possible escape of the enemy to Burma. The Western Naval Command contained the Pakistan fleet and prevented it from hitting Indian shipping and ports. Two daring attacks mounted by the Western Fleet damaged port and shore installations at Karachi and substantially reduced the strength of the Pakistan fleet.

The successful conclusion of the war led to the birth of the new state of Bangladesh and the redemption of India's pledge of sympathy and support to the people of that country.

Rehabilitation Schemes

Remembering its debt to those who laid down their lives and to mitigate the sufferings of their wives and children and the disabled officers and servicemen, the Central and State Governments have formulated a number of schemes for their assistance. Among them is a scheme which allows liberal pension/concessions for the widows and families of officers and men killed in action and for those disabled. The scheme, which came into operation from 1 February 1972, is more liberal than any scheme elsewhere in the world and covers all those affected in the military operations since the 1947-48 Kashmir War. This apart, the Central Government will meet the full cost of the education up to the end of the first degree course of the dependents of all the personnel of the Defence and para-military forces killed or permanently disabled. It will also bear the full cost of such dependents who have already taken up such post-graduate courses.

Other schemes, which are in addition to existing concessions, relate to priority in obtaining alternative employment under the Central Government and public undertakings. Disabled servicemen will be entitled to concessions in age, educational qualifications and medical standards. Up to two family members of each serviceman killed in action will be given Class III and Class IV jobs under the Ministry of Defence without registration at the Employment Exchanges. A number of seats have also been reserved for them in technical institutions.

State schemes include cash grants, ex-gratia allotment of land for agricultural purposes and residential plots on concessional rates.

WELFARE OF EX-SERVICEMEN

The Director-General of Resettlement in the Defence Ministry looks after the resettlement of ex-Servicemen in Government and private services, vocational and technical trades, land colonies and transport services. A certain percentage of vacancies has been reserved by both the Central and State Governments for the ex-Servicemen. To encourage self-employment a number of schemes are being implemented in stages. These include establishment of Ex-Servicemen's Co-operative Industrial Estates in selected areas, setting up of industrial and shopping centres by using surplus military land, reservation of factory plots and formation of special industrial projects. There are also other schemes in operation which train ex-Servicemen who prefer employment in professions needing background expertise and knowledge. These include training in industrial and agricultural skills, animal husbandry, teaching and social work.

An important organisation which assists ex-Servicemen and their families, in close liaison with the local administration, is the Soldiers', Sailors' and Airmen's Board. The Board, with its headquarters in New Delhi, coordinates the activities of the State Boards. A number of Central funds like the Flag Day Fund, the Armed Forces Benevolent Fund and the Armed Forces Reconstruction Fund are also used for the rehabilitation of ex-Servicemen.

5 EDUCATION

There has been an enormous expansion of education at all levels during the last two decades. The enrolment in schools and at the university stage has increased manifold. The admission capacity in engineering and technological institutions has risen about seven times. The literacy rate has gone up from 16·6 per cent in 1951 to 29·4 per cent in 1971.

Education in India is primarily the responsibility of the State Governments but the Union Government is concerned with the coordination of educational facilities, determination of standards of higher education, scientific and technical education, research, promotion of Hindi and development of all Indian languages. It is also responsible for the running of five Central universities (Aligarh, Banaras, Delhi, Jawaharlal Nehru and Visva Bharati) and such other institutions of national importance as Parliament may by law declare.

The obligations of the Union Government are discharged by the Ministry of Education through the agency of different bodies such as the University Grants Commission, the Central Hindi Directorate and a number of advisory bodies, namely, the National Council for Women's Education, the Central Advisory Board of Education and the All India Council for Technical Education which help the Ministry in working out its programmes and policies.

POLICY

An Education Commission was appointed in October 1964 with Dr D.C. Kothari as chairman to advise the Government on a national pattern and development of education. Based largely on its recommendations, the Government formulated a National Policy on Education which was issued in the form of a Government resolution on 24 July 1968. The key points were: (i) free and compulsory education up to the age of 14; (ii) improved status, emoluments and education of teachers; (iii) three-language formula and development of regional languages; (iv) equalisation of education of science and research; (v) development of education for agriculture and industry; (vi) improvement in quality and production of inexpensive text-books, and (vii) investment of 6 per cent of national income in education.

PATTERN

The predominant pattern of education in the country comprises eight years of integrated elementary (basic) education, three years of secondary education with diversified courses to give it a vocational bias and make it a terminal point for entry into trade or profession and three years of university education leading to the first degree. Some of the States have adopted a pattern of seven years of elementary education followed by four years of secondary education.

The Education Commission had, however, suggested a uniform pattern of 15 years' duration leading to the first degree (10 years of high school education, two years of higher secondary education and three years for the first degree course). A few States have taken preliminary steps to adopt the new pattern of secondary education and propose to complete the change-over during the Fourth Plan.

PROGRESS

There has been a tremendous increase in the number of institutions, students and teachers during the last two decades. The number of institutions increased from 2,86,860 in 1950-51 to 7,93,799* in 1967-68 while that of students on rolls rose from 255·43 lakhs in 1950-51 to 765·82* lakhs in 1967-68. The number of teachers also went up from 8·04 lakhs in 1950-51 to 22·5* lakhs in 1967-68. Similarly, the expenditure (direct and indirect) on education increased from Rs 114·38 crores in 1950-51 to Rs 800·84* crores in 1967-68.

PLANS AND EDUCATION

A working partnership has been evolved between the Centre and the State Governments to implement the educational development plans. Most of the schemes are formulated and implemented by the State Governments with some assistance from the Centre. The approach to education during the Fourth Plan is three-fold, namely, to remove the present deficiency in the system and link it more effectively with the increasing demands of social and economic development, to remove internal stresses and strains in the educational system which have developed in consequence of rapid expansion in the first three Plans and to extend the system in response to social urges and economic needs.

To formulate proposals for the development of education in the Fifth Five Year Plan in the light of the progress expected to be achieved at the end of the Fourth Plan and perspective of overall development envisaged by 1988-89, the Planning Commission has set up a Steering Group of twenty experts on Education. In addition, 11 task forces have also been set up to draw up proposals for elementary, secondary and university education, vocational and technical education, adult and out-of-school education, programmes and problems of youth, education and employment, art and culture, language development, book production and libraries, education finance and machinery for educational planning and implementation.

Expenditure on education during the first three Plans and the outlay for the Fourth Plan is shown in Table 5. 1. Table 5·2 gives the achievements at different levels of education in the first three Plans and the targets in the Fourth Plan.

TABLE 5.1
EXPENDITURE UNDER PLANS

(*Rs crores*)

Major head	First three Plans	Fourth Plan outlay (1969–74)
Elementary education	359	234.74
Secondary education	174	118.32
University education	149	183.52
Teachers' training	23**	21.17
Social education	11	8.30
Other educational programmes	96	118.75
Cultural programmes	10+	12.49
Technical education	194	123.17
TOTAL	1,016	820.46@

**The figure is for the Third Plan only. Expenditure in the first two Plans was included under 'elementary/secondary education'.

+Represents total for Second and Third Plans. Expenditure in the First Plan was included under 'other educational programmes'.

@Expenditure on items other than technical education has since been increased by Rs 3.78 crores, for which sub-head-wise break-up is not available.

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* Provisional.

TABLE 5.2

ACHIEVEMENTS AND TARGETS

Particulars	1950–51	1955–56	1960–61	1965–66	1970–71*	Fourth Plan (targets)
Number of pupils in classes I to V (*in lakhs*)	191.5	251.7	349.9	504.7	592.5	689.2
Percentage thereof to total population in age group 6–11	42.6	52.8	62.4	76.7	80.3	85.3
Number of pupils in classes VI to VIII (*in lakhs*)	31.2	42.9	67.0	105.3	134.0	176.5
Percentage thereof to total population in age group 11–14	12.7	16.5	22.5	30.8	34.1	41.3
Number of pupils in classes IX to XI/XII (*in lakhs*)	12.2	18.8	28.9	50.4	71.7	98.5
Percentage thereof to total population in age group 14–17	5.3	7.4	10.6	16.2	20.4	24.0
Number of pupils at the university stage—arts, science and commerce (*in lakhs*)	3.6	6.3	8.9	14.9	22.1	27.7
Percentage thereof to total population in age group 17–23	0.8	1.4	1.8	2.7	3.7	3.8
Percentage of students reading science at university stage	37.8	33.0	26.9	29.5	43.8	44.7
Number of primary/junior basic schools	2,09,671	2,78,135	2,30,399	3,91,064	4,04,418	—
Number of middle/senior basic schools	13,596	21,730	49,663	75,798	88,587	—
Number of high/higher secondary schools	7,288	10,838	17,257	27,477	35,773	—
Number of multi-purpose schools	—	255	2,115	2,386	2,625**	—
Number of training schools	782	939	1,138	601	822	—
Number of training colleges	53	107	478	1,272	843	—
Number of arts, science (including research institutions) and commerce colleges	542	772	1,122	1,788	2,792	—
Number of universities	27	32	45	64	86	—
Percentage of trained teachers						
Primary schools	58.8	61.2	64.1	70.5	82.8	—
Middle schools	53.3	58.5	66.5	76.9	83.0	—
High/higher secondary schools	53.8	59.7	64.1	68.5	79.6	—

*Provisional.
**Figures are for 1967–68.

LITERACY

The state of literacy in the country, according to the 1971 census, is shown in Table 5.3.

ELEMENTARY EDUCATION

Under a Directive Principle of State Policy, free and compulsory elementary education is to be provided for all children up to the age of 14. At present, facilities for free lower primary education (classes I-V, age group 6–11) exist in all the States and Union Territories. But in the rural areas of West Bengal education is free only for boys in classes I-IV. In some urban areas it is free for both boys and girls in classes I-IV but in some others, including Calcutta, it is free only for girls.

Education at upper primary stage (classes VI-VII-VIII, age group 11-14) is free for boys and girls in all the States except Bihar, Uttar Pradesh and West Bengal where it is free for girls only.

SECONDARY EDUCATION

Education is free up to secondary stage in Andhra Pradesh, Jammu and Kashmir, Kerala, Mysore, Nagaland and Tamil Nadu. It is free for girls only in Rajasthan and Uttar Pradesh. The Union Territories follow the system prevailing in one or other of the States.

Children belonging to the Scheduled Castes and Scheduled Tribes get free education in all the States.

CENTRAL SCHOOLS

To provide facilities to the children of transferable Central Government employees, 142 Central Schools have been set up all over the country with a common medium of instruction (Hindi/English) to prepare students for a common examination, namely, the All-India Higher Secondary Examination of the Central Board of Secondary Education, New Delhi. These schools aim at maintaining educational standards at a moderate cost to the parents.

VOCATIONAL AND TECHNICAL SCHOOL EDUCATION*

A major task in the field of post-elementary education during the Fourth Plan is to provide a large variety of vocational courses for children who do not intend to continue their general education beyond the elementary stage. The industrial training institutes meet a part of this demand. To prepare students to take up employment after the secondary stage, a number of vocational courses are being provided at industrial training institutes, polytechnics and nursing and agricultural schools.

HIGHER AND UNIVERSITY EDUCATION

Post-secondary education in India is imparted through arts and science and professional colleges, research institutions and universities. In the States, having Boards of Higher Secondary and Intermediate Education, post-intermediate education is conducted under the direction and control of universities in respect of courses of study, examinations and award of degrees and diplomas.

The Inter-University Board, founded in 1925, provides the forum for the discussion of university problems and for the mutual recognition of degrees and diplomas awarded by the universities in India. The functions of the Board are advisory in character.

Besides 86 universities, there are a large number of institutions which impart higher learning. The Birla Institute of Technology

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* Vocational institutions include schools for agriculture, fine arts (music, dance and others including applied art), commerce, forestry, physical education, veterinary science, medicine (nursing, midwifery and compounding), teachers' training (basic, arts and crafts/pre-primary/pre-basic), technical training and others.

TABLE 5.3

LITERACY*

State/Union Territory	Literates			Percentage of Literacy		
	Persons	Males	Females	Persons	Males	Females
INDIA	**16,13,77,780**	**11,20,14,845**	**4,93,62,935**	**29.45**	**39.45**	**18.70**
States						
Andhra Pradesh	1,06,89,665	73,03,297	33,86,368	24.57	33.18	15.75
Assam	41,16,771	28,29,242	12,87,529	28.72	37.19	19.27
Bihar	1,12,37,613	88,39,395	23,98,218	19.94	30.64	8.72
Gujarat	95,55,289	63,63,767	31,91,522	35.79	46.11	24.75
Haryana	26,99,179	20,05,424	6,93,755	26.89	37.29	14.89
Himachal Pradesh	11,05,825	7,63,192	3,42,633	31.96	43.19	20.23
Jammu & Kashmir	8,57,964	6,57,660	2,00,304	18.58	26.75	9.28
Kerala	1,28,98,072	70,54,096	58,43,976	60.42	66.62	54.31
Madhya Pradesh	92,23,081	70,16,649	22,06,432	22.14	32.70	10.92
Maharashtra	1,97,52,608	1,33,31,079	64,21,529	39.18	51.04	26.43
Manipur	3,53,090	2,49,383	1,03,707	32.91	46.04	19.53
Meghalaya	2,98,312	1,77,772	1,20,540	29.49	34.12	24.56
Mysore	92,35,127	62,31,363	30,03,764	31.52	41.62	20.97
Nagaland	1,41,518	96,681	44,837	27.40	35.02	18.65
Orissa	57,45,399	42,27,806	15,17,593	26.18	38.29	13.92
Punjab	45,62,123	29,34,281	16,27,842	33.67	40.38	25.90
Rajasthan	49,14,293	38,75,435	10,38,858	19.07	28.74	8.46
Tamil Nadu	1,62,56,393	1,07,83,783	54,72,610	39.46	51.78	26.86
Tripura	4,82,082	3,22,017	1,60,065	30.98	40.20	21.19
Uttar Pradesh	1,91,73,970	1,48,12,311	43,61,659	21.70	31.50	10.55
West Bengal	1,47,11,739	1,00,31,891	46,79,848	33.20	42.81	22.42
Union Territories						
Andaman & Nicobar Islands	50,191	36,160	14,031	43.59	51.64	31.11
Arunachal Pradesh	52,791	44,776	8,015	11.29	17.82	3.71
Chandigarh	1,58,371	98,495	59,876	61.56	66.97	54.35
Dadra & Nagar Haveli	11,105	8,188	2,917	14.97	22.15	7.84
Delhi	23,01,605	14,38,268	8,63,337	56.61	63.71	47.75
Goa, Daman and Diu	3,83,864	2,34,178	1,49,686	44.75	54.31	35.09
L.M. & A. Islands	13,889	9,081	4,808	43.66	56.48	30.56
Mizoram	1,78,793	1,03,324	75,469	—	—	—
Pondicherry	2,17,058	1,35,851	81,207	46.02	57.29	34.62

*Inclusive of 0–4 age group.

and Science, Pilani, Indian Agricultural Research Institute, New Delhi, Indian Institute of Science, Bangalore, Jamia Millia Islamia, New Delhi, Gurukul Kangri Vishwavidyalaya, Hardwar, Kashi Vidyapith, Varanasi, Gujarat Vidyapith, Ahmedabad, Tata Institute of Social Sciences, Bombay and Indian School of Mines, Dhanbad, are all deemed to be universities for the purposes of the University Grants Commission Act, 1956. Many of the research laboratories and institutions mentioned in the chapter "Scientific Research" are recognised by the Inter-University Board as centres of higher research.

University Grants Commission

The University Grants Commission which was constituted in 1953 became on autonomous statutory body in 1956. The Commission promotes and coordinates university education and determines and maintains standards of teaching, examination and research in the universities. It has the authority to make appropriate grants to different universities and implement development schemes.

HIGHER TECHNICAL EDUCATION

Five Higher Technological Institutions of national importance at Kharagpur, Bombay, Madras, New Delhi and Kanpur have now been functioning for over 10 years. Admission to these institutions at the under-graduate level is made on the basis of a common entrance examination held at several centres in the country. The annual intake of these institutions is 1,250 students at the under-graduate level and 1,200-1,500 students at the post-graduate and research levels. Besides these, there are 14 regional engineering colleges, a number of other engineering colleges, technological institutions and polytechnics. For specialised courses, such as, mining and metallurgy, a number of centres have been established both for degree and diploma courses. The old institutions have also been expanded and developed. To integrate engineering education with practical training, 60 engineering colleges and polytechnics have started sandwich courses in cooperation with industry. The duration of such courses for degree in engineering is 5½ years and for diploma in engineering 3½ years.

By 1967, the number of institutions for degree and diploma courses in engineering had risen to 137 and 284 as compared to 53 and 89 in 1951. The sanctioned annual intake capacity for both degree and diploma courses rose from 11,004 in 1951 to 72,190 in 1967. In 1968, when unemployment among engineering graduates and diploma-holders became acute, admissions to technical institutions had to be regulated. Most of the engineering colleges and polytechnics reduced their intake by 30 per cent. This reduced level is being maintained at present. In 1971, the total intake for degree and diploma courses was 45,749.

The main emphasis in technical education during the Fourth Plan is on improving the quality and standards and modifying it to suit the needs of industry more efficiently.

RURAL HIGHER EDUCATION

The scheme of Rural Higher Education was launched in 1956 with the object of providing higher education, after the secondary stage, to the rural youth and inculcating in them a spirit of service to the community and sympathy for the rural way of life, besides training them for careers in the rural development programmes of the Central and State Governments. The National Council for Rural Higher Education advises the Government on all matters concerning the development of rural higher education. At present, 13 rural institutes are functioning at Coimbatore and Gandhigram (Tamil Nadu), Jamianagar (Delhi), Udaipur (Rajasthan), Birouli (Bihar), Bichpuri (Uttar Pradesh), Amravati, Gargoti and Wardha (Maharashtra), Rajpura (Punjab), Hanumanamatti (Mysore), Tavanur (Kerala) and Indore (Madhya Pradesh).

ADULT EDUCATION

To further the National Policy on Education, the Ministry of Education operates a scheme to eradicate illiteracy among the adult population. The central idea behind the programme is to enable them to improve their lot and create in them an urge for change from traditional to progressive society. The field programme of adult education with adult literacy as the core activity is the responsibility of the State Governments and Union Territory Administrations. The Union Ministry of Education coordinates programmes, provides supporting services and conducts pilot projects which are of importance to the programme of social education in the country. In the Fourth Plan about 60 lakh illiterate adults are proposed to be covered by such pilot projects.

A pilot project called the Farmers' Functional Literacy Programme was launched in 1967-68 in three selected districts as a joint integrated programme of three Central Ministries, namely, Education, Agriculture and Information and Broadcasting. It aims at helping the illiterate farmers to acquire not only literacy skills but also agricultural know-how which could be used by them. It is planned to cover 10,00,000 illiterate adult farmers in 100 selected districts in the country during the Fourth Plan. So far the programme has been extended to 80 districts and about 70,000 adult farmers have been made functionally literate. Another 1,00,000 are undergoing functional literacy courses.

Facilities for adult education for industrial workers and their families are also provided by the Ministry of Education through institutes in selected areas where there is a concentration of industrial population. Two such institutes, one at Indore and the other at Nagpur, are functioning.

The National Board of Adult Education promotes and evaluates the programme of adult education in the country.

WOMEN'S EDUCATION

To stimulate the education of girls and women, the Central and State Governments have taken a number of steps. These include creation of separate cells in the State Directorates of Education to look after programmes for girls' education, establishment of polytechnics for girls, construction of staff quarters for women teachers in rural areas and girls' hostels, introduction of condensed educational courses, assistance to voluntary educational organisations working in the field of women's education and holding of seminars in different States to discuss problems and programmes of girls' education.

The Central and State Governments are guided by the advice of the National Council for Women's Education in framing programmes and policies for education of women. Similar bodies have been set up by the various State Governments.

There were 282·7 lakh girls at school during 1970-71; 223·9 lakhs in classes I to V, 39·9 lakhs in classes VI to VIII and 18·9 lakhs in classes IX to XI. It is expected that by the end of the Fourth Five Year Plan 70·1 per cent of girls at the primary stage, 27·7 per cent at the middle stage and 13·7 per cent at the secondary stage in the respective age groups will be in schools.

RESEARCH AND TRAINING

The National Council of Educational Research and Training (NCERT), which was established in 1961, assists the Ministry of Education and Social Welfare in the formulation and implementation of its policies and major programmes in the field of school education. The Council works in close cooperation with the Education Departments in the States and universities and with other institutions set up in the country for furthering the objectives of school education. In addition, it maintains close contacts with international organisations. The results of the investigations conducted by the Council are made available to the public through books, journals and other literature. The Council runs four regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore.

Indian Institute of Advanced Study

The Indian Institute of Advanced Study in Simla was set up in 1965 as a centre for advanced study and research in the humanities and social sciences. Its aim is to serve as a small university where scholars meet and discourse for their mutual benefit. Seminars, symposia, conferences and lectures, in which scholars from abroad also take part, are held for this purpose.

DEVELOPMENT OF HINDI

The programme for the propagation, development and enrichment of Hindi, the official language of the Union, comprises various activities. These include (i) grants to voluntary Hindi organisations; (ii) evolution, review, coordination and finalisation of Hindi terminology other than legal; (iii) standardisation of keyboard for Hindi typewriters and teleprinters; (iv) evolution of a standard system of Hindi shorthand; (v) organisation of Hindi teachers' training colleges in the non-Hindi speaking areas; (vi) preparation of dictionaries; (vii) preparation of linguaphone records, language lessons and tapes; (viii) publication of a quarterly journal, "Bhasha", and monthly bulletin "Hindi-Samachar Jagat" devoted to the problems of language and literature; (ix) publication of primers and readers for foreigners; (x) preparation of self-taught books for learning South Indian languages through the medium of Hindi; (xi) award of prizes to Hindi writers belonging to non-Hindi speaking areas; (xii) providing facilities of postal tuitions for teaching Hindi to the non-Hindi speaking people of non-school age group in the country and abroad; (xiii) publication of popular Hindi books in collaboration with private publishers; (xiv) free distribution of Hindi books to schools, colleges and public libraries in non-Hindi speaking States; (xv) propagation of Hindi in foreign countries; (xvi) conduct of intensive courses for teaching Hindi to Central Government employees; (xvii) conduct of research in methodology in teaching Hindi; (xviii) production of teaching materials for teaching Hindi as a second language, and (xix) training Hindi teachers from non-Hindi speaking areas at the Kendriya Hindi Sansthan, Agra, in modern language teaching techniques and production of university level books in Hindi.

MODERN INDIAN LANGUAGES

Under the scheme for the development of modern Indian languages, assistance is provided to voluntary organisations for bringing out publications like encyclopaedias, bilingual dictionaries, books of knowledge, catalogues of manuscripts and books of cultural, literary, Indological and scientific interest. Grants are also given for holding literary conferences, seminars and exhibitions and for conducting other important activities considered conducive to the development of

Indian languages. Assistance is also given by way of purchasing copies of printed publications. Production of books in Urdu and Sindhi has been undertaken at the Central level.

The State Governments are provided assistance to take up programmes for the development of the regional languages, including special help for the production of university-level books in these languages.

Central Institute of Indian Languages

The Central Institute of Indian Languages, Mysore, serves as a nucleus to bring together all the research and literary output from the various linguistic streams to a common head, thereby demonstrating the fundamental unity of the country. It achieves this by identifying the bonds of unity among different Indian languages in terms of history, vocabulary, cross-fertilisation, grammar, linguistic structure and literary and cultural themes and subject content. The Institute also evolves techniques for the teaching of languages, reducing the time element involved in learning different languages and preparing basic vocabularies for basic Tamil, basic Kannada, basic Hindi and basic Urdu. The study of tribal languages with a view to devising suitable material for teaching Indian languages to them and teaching their languages to others is a special responsibility of this Institute.

For facilitating multi-lingualism and for implementing the three-language formula, four regional centres of the Institute function at Bhubaneswar, Mysore, Patiala and Poona and impart training to teachers in second language teaching.

Foreign Languages

The Central Institute of English and Foreign Languages, Hyderabad, trains Indian teachers in the teaching of foreign languages including English, development of teaching methodology and of teaching materials for use by Indian teachers and students of foreign languages. It also trains interpreters and translators.

YOUTH SERVICES

The Ministry of Education and Social Welfare operates a few special programmes in the field of physical education, games, sports, youth services and youth welfare including assistance to the universities in the promotion of Youth Welfare Boards and Committees and promotion of boy scout and girl guide movements in schools.

NATIONAL ADVISORY BOARD ON YOUTH

A National Advisory Board has been set up to coordinate the activities of various Government and non-Government agencies engaged in youth welfare/service programmes. On the advice of the Board, the Department of Education has worked out programmes for implementation by State Governments and voluntary youth organisations. These programmes include (i) setting up of State and District Youth Boards and Youth Centres; (ii) establishment of work centres for imparting training in productive work in cooperation with Ministries/ Departments of Agriculture and Labour; (iii) development of extension facilities for camping, hiking, tracking and mountaineering; (iv) provision of facilities for training of youth leaders; (v) development of play fields in urban areas, and (vi) grant of financial assistance to voluntary organisations engaged in youth welfare activities.

NATIONAL SERVICE SCHEME

The National Service Scheme, which was conceived as an alternative to the National Cadet Corps, was launched in October 1969 in selected universities and institutions and later extended to all the universities. It aims at providing under-graduate students with opportunity for devoting their leisure time to a variety of social service and community developmental activities alongside their academic work.

NATIONAL FITNESS CORPS PROGRAMME

The National Fitness Corps Programme is an integrated multi-purpose programme to build up the health of school children and develop their social qualities. The Programme has been accepted by most of the State Governments and Union Territory Administrations.

NATIONAL PHYSICAL EFFICIENCY DRIVE

The scheme was initiated in the Second Five Year Plan to awaken a general awareness among the people of the need and value of physical efficiency and achievement. To give impetus to the Scheme, it has been entrusted to the Lakshmibai National College of Physical Education, Gwalior.

Lakshmibai National College of Physical Education

The Lakshmibai National College of Physical Education is one of the two national institutes for the development of physical education and sports in the country. It was established at Gwalior in 1957 and provides teacher-training facilities for a three-year degree course and also for post-graduate studies and research in physical education.

SPORTS

The All India Council of Sports, which was replaced by the National Council of Sports and Physical Education in December 1970, has been revived with more broad-based membership. The Council advises the Union Government on all matters regarding sports, games and physical education. In consultation with the Council, the Government gives financial assistance to national sports organisations for the purchase of equipment, visits of Indian sports teams to foreign countries and *vice-versa*, holding of national championships and setting up of rural sports centres.

National Sports Organisation

The National Sports Organisation, set up in October 1969, aims at promoting excellence among college students in selected fields of sports and games. To achieve this, the Organisation provides physical facilities in the universities. It also arranges coaches, organises coaching camps and recommends students for sports talent scholarships. The scheme is managed by the Inter-University Sports Board and the University Grants Commission.

National Institute of Sports

The National Institute of Sports, established at Patiala in 1961, conducts courses in different games under the guidance of experts and lays special emphasis on popularising sports and games in educational institutions and rural areas. About 2,000 coaches have been trained so far.

6 CULTURAL ACTIVITIES

Promotion of art and culture and inculcation of art consciousness among the people are sought to be achieved through the agency of the Lalit Kala Akademi (Academy of Art), Sangeet Natak Akademi (Academy of Dance, Drama and Music) and Sahitya Akademi (Academy of Letters). Similar institutions strive for the promotion of art and culture in the States. The facilities at the disposal of the state for mass communication, such as the radio, the television, the films, books and periodicals are being utilised to make the people conscious of their cultural heritage. In this task, valuable support also comes from a number of institutions all over the country.

A separate Department of Culture has been set up for the promotion of art and culture. During 1972-73, Rs 6.6 crores* have been allocated to the Department to implement its various schemes and programmes.

ART

Lalit Kala Akademi

The Lalit Kala Akademi, set up in 1954, is a national body for the promotion of fine arts. It seeks to serve the cause of art, artists and the people by bridging the gulf between them. Its activities are both national and international which seek to increase the understanding of Indian art both within India and abroad. This is achieved through exhibitions and publications.

Within India, the Akademi organises annually the National Exhibition where awards** are given to artists for outstanding works. Senior artists, art historians and critics are also honoured by being made Fellows of the Akademi.

The Akademi sponsors and organises the international exhibition known as the Triennale. The last Triennale was held in 1971 and 42 countries participated in it. Awards at the Triennale are given by an international jury.

National Gallery of Modern Art

The National Gallery of Modern Art, established in 1954, now possesses a collection of over 2,500 works of art representing various styles over a hundred years. Among the distinguished artists whose works are represented at the Gallery are Rabindranath Tagore, Nandlal Bose, Abanindranath Tagore, Ravi Verma, Gaganendranath Tagore, Jamini Roy, D.P. Roy Chowdhury, Amrita Sher-Gil, Sudhir Khastagir, N.S. Bendre, Mohan Samant, M.F. Husain, Satish Gujral, Akbar Padamsee and J. Swaminathan.

Museums

The Union Government and the States maintain and develop museums of national importance to preserve art objects and revive and strengthen the cultural consciousness of the people. Private museums are given financial assistance for their development.

There are more than two hundred museums in the country. Some of the important museums are the Indian Museum and Victoria Memorial Hall, Calcutta; National Museum and Nehru Memorial Museum and Library, New Delhi; Indian War Memorial Museum, Delhi and Salar Jung Museum and Library, Hyderabad.

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* Provisional.

**For a list of 1972 awards, see Appendix.

DANCE, DRAMA AND MUSIC

Sangeet Natak Akademi

The Sangeet Natak Akademi, which was established in 1953, fosters the development of dance, drama, music and the folk arts.

For the promotion of the performing arts, the Akademi has set up teaching institutions such as the National School of Drama, New Delhi, the Kathak Kendra, New Delhi and the Jawaharlal Nehru Manipur Dance Academy, Imphal. The Akademi also gives financial assistance to institutions working in the fields of dance, drama and music for various purposes including training, cost of new productions, purchase of technical equipments and survey and research projects.

The Akademi has also initiated a scheme under which a prize of Rs 1,500 is given for books in various modern Indian languages and English on music, dance and drama. The Akademi honours the outstanding artistes by annually conferring awards* for distinguished service in the various fields. It also promotes appreciation of the performing arts by presenting several free concerts, recitals and productions in festivals held during each year.

In order to preserve and foster the many folk forms in the country, the Akademi has its technical departments for field work, consisting of a film unit and a recording and photography unit. It also has a well-equipped recording studio and a disc and tape library containing the largest collection of records and tapes of Indian classical, folk and tribal music in the country.

In 'Asavari', a small gallery of musical instruments located in the Akademi, about 400 classical, folk and tribal instruments are displayed, while the 'Yavanika' houses a representative but rich and varied collection of fascinating masks, puppets and folk-theatre costumes.

Music Programmes

Music, both traditional and modern, constitutes a sizable part of the programmes broadcast by All India Radio. On an average, music takes about 43.6 per cent of the total broadcasting time of AIR.

A major step towards popularising classical music was the starting in 1952 of a weekly National Programme of Music which has been on the air ever since and which presents to a nation-wide audience recitals by leading musicians. During 1971, this weekly National Programme of Music featured a large number of musicians belonging both to the Hindustani and Karnatak systems. In addition, programmes based on the music of coastal regions, folk music featuring eminent folk artistes of different regions, and a musical feature depicting the impact on the national movement of the music of Rabindranath Tagore were broadcast in the National Programme of Music.

Once every year, AIR organises a week-long festival of music known as the Radio Sangeet Sammelan. The 1971 Sammelan was held from October 9 to 17. Concerts, devoted separately to Hindustani and Karnatak music, were held at Bombay, Calcutta, Chandigarh, Cuttack and Delhi in the north; and at Bangalore, Calicut, Hyderabad, Madras, Tiruchi, Trivandrum and Vijayawada in the south. Preceding the music festival and following a yearly practice, AIR held a music competition to discover fresh, young talent.

The AIR Vadya Vrinda (National Orchestra) was set up in 1952 and has been functioning under the guidance of eminent composers and musicians. It represents the first serious attempt at developing a balanced ensemble of instruments suited to the requirements of Indian music. It has built up, over the years, a sizable repertoire of compositions based on traditional *ragas* and folk tunes. It also produces on different occasions special music programmes of thematic compositions.

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* For a list of 1971 awards, see Appendix.

Radio Drama

Radio drama is an important ingredient of AIR's programme output. The National Programme of Plays, including some of the best-known plays in Indian dramatic literature, was introduced in 1956. Once a month, an outstanding play from one of the Indian languages is broadcast by the regional stations of AIR in their respective languages, bringing the art of one part of the country close to the people living in other parts. From its inception to the end of December 1971, 175 plays had been broadcast in AIR's National Programme of Plays.

LITERATURE

Sahitya Akademi

The Sahitya Akademi, which was set up in 1954, is a national organisation working actively for the development of Indian letters. It fosters and co-ordinates literary activities in all the Indian languages promoting through them the cultural unity of the country.

The publication of a *National Bibliography of Indian Literature* (1901-1953), covering all books of literary merit published in all the major Indian languages as well as books in English published in India or written by Indian authors, is an important activity of the Akademi. The first three volumes of the *Bibliography* covering English and all the major Indian languages except Telugu, Tamil, Urdu and Sindhi have been published. The Akademi also arranges for the translation and publication of Indian and foreign classics into Indian languages to meet the cultural and literary needs of a multilingual society. It has also taken in hand the publication of the collected works of Maulana Abul Kalam Azad in Urdu and a series of monographs on the life and contribution of various Indian writers, both ancient and modern, entitled *Makers of Indian Literature.*

The Akademi brought out 56 publications during 1971 in different Indian languages.

The Akademi makes annual awards*to authors of outstanding books published in Indian languages.

Gandhian Literature

A complete collection of Mahatma Gandhi's writings, speeches and letters in chronological order in a series of volumes is being brought out by the Ministry of Information and Broadcasting. The first 47 volumes in English covering the period 1884 to September 1931 and the first 43 volumes in Hindi covering the period 1884 to June 1930 have been released.

BOOKS

India is one of the leading publishers of books in the world. There are about 200 big, 2,000 medium and 8,000 small publishers in the country. Between 14 to 25 thousand books are published every year to cater for every level of education and for varied interests of readers. During 1969-70, 14,145 books were published in the country.

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* For a list of 1971 awards, see Appendix.

Books worth about Rs one crore were exported to about 80 countries during 1970-71.

To encourage the growth of book production, the Government of India set up the National Book Development Board in 1967. The Book Promotion Division in the Ministry of Education also operates several schemes to stimulate the production of indigenous books at the university level and co-ordinates the work of reprinting and translation of foreign titles. A programme costing Rs 12 crores in the Fourth Plan to produce university-level books in Indian languages has been launched.

National Book Trust

The National Book Trust, which was set up in 1957, encourages the production of good literature and makes it available at moderate prices to libraries, educational institutions and the public. So far, more than 750 books in various Indian languages have been released by the Trust.

The Trust organises annually National Book Fairs, Regional Book Exhibitions and Writers' Camps. To promote the sales of Indian publications abroad, the Trust participates in international book fairs and organises exhibitions of Indian books in foreign countries. In March 1972, the Trust organised the World Book Fair in New Delhi in response to a UNESCO decision to celebrate 1972 as the International Book Year. The Fair was attended by delegates from 30 countries and nearly 2 lakh books were displayed in it.

Publications Division

The Publications Division of the Ministry of Information and Broadcasting publishes books and pamphlets in English, Hindi and other Indian languages. Every year, about 200 titles are released by the Division. The number of titles released by the Division since 1949 is about 4,000.

Children's literature is brought out by the Children's Book Trust and the National Council of Educational Research and Training. The National Book Trust and the Publications Division also bring out books for children.

LIBRARIES

There are more than 10,000* libraries of all descriptions in the country including eight libraries attached to the institutions declared by Parliament of national importance and over 200 specialised libraries attached to the various Departments of the Government of India.

The National Library, Calcutta (14 lakh volumes) is the largest in India. The other national libraries are the Connemara Library, Madras (over 2.50 lakh volumes) and the Central Library, Bombay (about 6 lakh volumes). All these are the 'copyright' libraries of the country and are entitled to receive a copy of each new book and magazine published in India under the Delivery of Books (Public Libraries) Act, 1954.

Some of the other leading libraries are the Delhi Public Library, Delhi (5 lakh volumes), the Central Secretariat Library, New Dlehi (4 lakh volumes) and the libraries of some of the bigger universities of India.

Specialised institutions provide facilities to research workers. Prominent among them are the Council of World Affairs Library, New Delhi; the Indian Statistical Institute Library, Calcutta; the

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* Estimated

Gokhale Institute Library, Poona; the Theosophical Society Library, Madras and the libraries of the National Council of Applied Economic Research and the Indian Institute of Public Administration at Delhi.

Among the manuscript libraries, the Saraswati Mahal Library at Thanjavur, the Government Oriental Manuscript Library at Madras, the Khuda Baksh Oriental Library at Patna, the Raza Library at Kanpur, the Oriental Research libraries at Poona and Baroda, the Sanskrit University Library at Varanasi and the Visheshwaranand Vedic Research Institute Library at Hoshiarpur have rich treasures of the country's literary heritage. The Khuda Baksh Oriental Public Library, Patna has been declared as an institution of national importance by an Act of Parliament. The Union Government gives assistance to public libraries catering to a population of over 50,000 run by voluntary educational organisations, for the purchase of books, equipment and furniture and also for the construction of buildings. To ensure their regulated development, legislation has been enacted by some of the State Governments, namely, Andhra Pradesh, Maharashtra, Mysore and Tamil Nadu.

FESTIVALS

Indian festivals are as varied in origin as they are large in number. Some of them celebrate the birthdays of national heroes, some the eternal cycle of the seasons. Others have their origin in religion and in the myths and legends of popular faith.

In keeping with the spirit of secularism to which the country is wedded, the Union and State Governments recognise as public holidays the main festivals of all the important communities of the country. Some of the major festivals common to all India are: Diwali, Dussehra, Holi, Shivaratri, Janmashtami, Rama Navami, Muharram*, Id-U-l Zuha, Id-Ul-Fitr, Id-I-Milad, Christmas, Good Friday, Easter Day, Vaisakhi, Gurpurabs (anniversaries of the Sikh Gurus), Buddha Jayanti, Mahavir Jayanti and Jamshed Navaroz.

CULTURAL RELATIONS WITH OTHER COUNTRIES

Indian Council for Cultural Relations

The Indian Council for Cultural Relations, established in April 1950, strives to promote and strengthen cultural relations and mutual understanding between India and other countries. The Council, with headquarters in New Delhi, has regional offices at Bombay, Calcutta and Madras and a Cultural Centre in Fiji.

The main activities of the ICCR are: development of Indian studies in foreign universities and *vice versa* through exchange of professors on long-term teaching assignments; publication of periodicals and books in Indian and foreign languages on the culture of India; exchange of books, films and objects of art with libraries and museums abroad; exchange of cultural delegations, scholars and artistes; exchange of exhibitions of art and books; welfare of foreign students in India; organising lectures (including Azad Memorial Lectures), seminars, international conferences and performances of dance and music by visiting artistes in different parts of the country.

The Council administers the Jawaharlal Nehru Award for the Promotion of Peace and International Understanding, instituted by the

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* Muharram, as observance of mourning, cannot be described as a festival. It is included among festivals of India because of its observance with piety and pageantry by a large number of people all over India.

Union Government in 1964. To date, U Thant, the late Dr. Martin Luther King, Khan Abdul Ghaffar Khan, Yehudi Menuhin, Mother Teresa and Dr. Kenneth D. Kaunda have been given this award.

Exhibitions

Exhibitions of Indian art and culture are periodically organised abroad. Similar exhibitions reflecting the art and culture of other countries are held in India.

Cultural Agreements

India has cultural agreements with 24 countries. They are: Afghanistan, Australia, Brazil, Bulgaria, Czechoslovakia, Egypt, Federal Republic of Germany, France, Greece, Hungary, Indonesia, Iran, Iraq, Japan, Kuwait, Mongolia, Norway, Philippines, Poland, Romania, Tunisia, Turkey, USSR and Yugoslavia. Closer cultural relations with some of these countries have found a practical shape in the form of Cultural Exchange Programmes. So far, India has entered into Cultural Exchange Programmes with 10 countries, namely, Bulgaria, Czechoslovakia, Federal Republic of Germany, France, Hungary, Mongolia, Poland, Romania, USSR and Yugoslavia.

India has also a regular Cultural Exchange Programme with the German Democratic Republic.

ARCHAEOLOGY

The Archaeological Survey of India, established in 1861, is responsible for the exploration and excavation of ancient sites, maintenance and preservation of ancient monuments and sites declared to be of national importance by law, study of epigraphs and coins, exhibition and preservation of ancient relics in the museums, and preparation and publication of multiform records, reports and reviews. It carries out its activities through 10 circles spread all over the country and 10 separate specialised branches dealing with excavations, prehistoric epigraphs, chemical preservation, archaeological gardens, museums and survey of temples.

During the last few years, the Survey has excavated numerous sites in the country. It has also sent expeditions to Egypt, Nepal and Afghanistan to conduct diverse archaeological works.

The Survey brings out an annual, *Indian Archaeology—A Review*, and *Ancient India*, a bulletin, besides research publications on various subjects.

APPENDIX

LALIT KALA AKADEMI AWARDS—1972

Painting

1. Anil Karanjai
2. Bikas Bhattacharjee
3. Eruch Hakim
4. Kaushik Chakravartty
5. Laxman Pai
6. M.K. Sharma
7. Mohan Sharma

Sculpture

1. Biman B. Dass
2. C.V. Dharmaratnam
3. Virendra Pratap Singh Gahlot

SANGEET NATAK AKADEMI AWARDS—1971

Music	1. Mallikarjun Mansoor	Hindustani Vocal
	2. Radhika Mohan Maitra	Hindustani Instrumental (Sarod)
	3. N. Channakeshavaiah	Karnatak Vocal
	4. Madurai Subramania Iyer	Karnatak Instrumental (Veena)
Dance	1. Tirumakudlu Chandrakanthamma	Bharata Natyam
	2. Kudamalur Karunakaran Nair	Kathakali
	3. Guru Ananta Charan Sai	Chhau (Mayurbhanj)
	4. T. Kuppuswami Mudaliar	Dance Accompaniment (Mridangam)
Drama	1. Prof. C.C. Mehta	Playwriting (Gujarati)
	2. Satya Dev Dubey	Director
	3. Dr. Shriram Lagoo	Acting (Marathi)
	4. Nateshan Thambiran	Traditional Theatre (Therukoothu)

SAHITYA AKADEMI AWARDS—1971

Language	Book (Subject)	Author
Bengali	*Manimahesh* (Travelogue)	Umaprasad Mukhopadhyaya
Dogri	*Meri Kavita Mere Geet* (Poems)	Smt. Padma Sachdev
English	*Morning Face* (Novel)	Dr. Mulk Raj Anand
Gujarati	*Natya Gathariyan* (Travelogue)	C.C. Mehta
Hindi	*Kavita Ke Naye Pratiman* (Literary criticism)	Dr. Namwar Singh
Kannada	*Kalidasa* (Literary criticism)	Adya Rangacharya
Maithili	*Payasvini* (Poems)	Surendra Jha 'Suman'
Malayalam	*Vida* (Poems)	Vyloppilli Sreedhara Menon
Marathi	*Pais* (Essays)	Kum. Durga Bhagwat
Oriya	*Aranaya Fasal* (Play)	Manoranjan Das
Punjabi	*Eho Hamara Jiwana* (Novel)	Smt. Dalip Kaur Tiwana
Sindhi	*Kumach* (Poems)	Krishin Rahi
Tamil	*Samudaya Veedhi* (Novel)	N. Parthasarathy
Telugu	*Vijayavilasamu: Hridayollasavyakhya* (Commentary)	Thapi Dharmarao
Urdu	*Ghalib Ki Shaksiyat Aur Shairi* (Literary criticism)	Rasheed Ahmed Siddiqui

7 SCIENTIFIC RESEARCH

There has been a significant progress in the field of scientific research in the country during the last two decades. Research is now being carried out in practically all the branches of science. The research and development activities are now spread over a network of nearly 200 laboratories and institutions, besides the universities. The national laboratories of the Council of Scientific and Industrial Research, whose number has grown from two in 1947 to thirty now, conduct research in various disciplines of science, technology and engineering to help the country achieve industrial and technological self-reliance. Agricultural research has helped the country achieve a breakthrough in agricultural production. Defence research has resulted in meeting the country's requirements of modern and sophisticated weaponry to a large extent. Medical research has greatly helped in eradicating disease and improving the health of the people.

EXPENDITURE

The total expenditure on scientific research and development increased from Rs 4.70 crores in 1950-51 to Rs 28.81 crores in 1958-59 and further to Rs 168 crores in 1970-71*. About 93 per cent of the expenditure in 1970-71 was incurred by the Government either directly through the institutions administered by it or indirectly through grants to non-Government institutions supported by it. The stock of scientific and technical personnel in the country, which stood at less than 2 lakh in 1950, now stands at an estimated 12 lakhs.

The following Table indicates the expenditure incurred by the Central Government, State Governments and private sector on scientific research and development during the years 1958-59, 1969-70 and 1970-71:

TABLE 7.1
EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT

(*Rs lakhs*)

Name of the organisation	1958–59	1969–70	1970–71
A. *Central Government*			
(i) Department of Atomic Energy	775.88	2,678.21	3,296.27
(ii) Council of Scientific and Industrial Research†	509.94	1,868.07	2,155.72
(iii) Defence Research & Development Organisation	150.00	1,454.27	1,881.31
(iv) Indian Council of Agricultural Research	372.29	1,596.00	1,957.00
(v) Indian Council of Medical Research	50.50	170.00	204.70
(vi) Other Ministries, etc.	907.31	4,429.50	4,926.95
	2,765.92	12,196.05	14,421.95
B. *State Governments*	100.00	1,222.00	1,258.00
C. *Private Sector*	15.00	1,063.00	1,122.00
TOTAL	2,880.92	14,481.05	16,801.95

* The revised estimate for 1970-71 is Rs 173.37 crores and the budget estimate for 1971-72 is Rs 214.04 crores.

† The revised estimate of expenditure of CSIR for 1971–72 is Rs 2,419.43 lakhs and estimate for 1972–73 is Rs 2,691.30 lakhs.

SCIENCE POLICY

Ever since Independence, the Government of India has accepted science and technology as a tool for the social and economic development of the country and for the inculcation of a scientific outlook among the people. Its policy, which was announced in March 1958 and continues to be operative now, aims at (i) fostering, promoting and sustaining the cultivation of science and scientific research in all its aspects—pure, applied and educational; (ii) ensuring an adequate supply of scientists and recognising their work; (iii) encouraging and initiating programmes for the training of scientific and technical personnel to fulfil the country's needs in science and education, agriculture and industry and defence; (iv) encouraging individual initiative for the acquisition and dissemination of knowledge and for the discovery of new knowledge; and (v) securing for the people of the country all the benefits that can accrue from the acquisition and application of scientific knowledge.

NATIONAL COMMITTEE ON SCIENCE AND TECHNOLOGY

A recent development in the field of scientific research and development was the creation of a new Department of Science and Technology in May 1971 and the National Committee on Science and Technology under the Minister for Planning in October 1971. The Department is designed to function as the executive arm of the National Committee which has replaced the earlier Committee on Science and Technology. While the National Committee is responsible for the "preparation and continuous updating of national scientific and technological plan both as Five Year Plans and as perspective Plan", the Department will take the follow-up action. Following the establishment of the Department of Science and Technology, such scientific responsibilities of the Ministry of Education which are directly related to this Department have been transferred to it. These include the ministerial responsibility of such autonomous bodies as the Council of Scientific and Industrial Research and the National Research Development Corporation of India, grants-in-aid to the Indian Science Congress, the science academies, scientific societies and research institutes and the administration of three scientific surveys, namely, the Survey of India and the Botanical and the Zoological Surveys.

NATIONAL COMMITTEE ON ENVIRONMENTAL PLANNING AND CO-ORDINATION

In order to bring about greater coherence and co-ordination in environmental policies and programmes and to integrate environmental concern in the process of planning for economic development and for science and technology, a National Committee on Environmental Planning and Co-ordination was set up in February 1972. The Committee, whose term will be two years, consists of both official and non-official members and will make recommendations to the Government on all aspects of environmental conservation and improvement.

RESEARCH ORGANISATIONS

Research and development is primarily organised by five major organisations, namely, the Council of Scientific and Industrial Research, Department of Atomic Energy, Indian Council of Medical Research, Defence Research and Development Organisation and Indian Council of Agricultural Research. Several scientific organisations with partial or full financial assistance from the Government as well as various universities are also engaged in research.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Scientific and industrial research under state auspices is carried out mainly through the Council of Scientific and Industrial Research (CSIR). For this purpose, it has a network of national laboratories and research institutes. The Council also supports scientific research in universities and other centres of learning. It grants fellowships to qualified persons who wish to pursue science as a career and disseminates scientific knowledge and information. It also administers the pool for temporary placement of well-qualified Indian scientists and technologists returning from abroad and also maintains a national register of scientific and technical personnel in the country.

NATIONAL LABORATORIES

The Council has set up thirty national laboratories, two organisations devoted to the dissemination of scientific information and two industrial and technological museums. These CSIR laboratories and the co-operative research associations aided by CSIR have been reorganised into six groups, namely, the chemical group, physical and earth sciences group, biological sciences group, engineering sciences group, information group and fibre group. The main functions of the laboratories are given below:

National Chemical Laboratory, Poona

This Laboratory undertakes basic and applied research in the physics and the chemistry of solid states, in the chemistry of rare metals, in radiation, dye-stuffs, terpenes, macrocyclic compounds, polymers, enzymes and in chemical engineering. Commercial production of a number of products has been undertaken by utilizing the process details developed by the NCL. The National Collection of Industrial Micro-organism and a Fine Chemicals Unit are housed in the Laboratory.

National Physical Laboratory, New Delhi

The National Physical Laboratory (NPL), New Delhi, which was inaugurated in 1951, carries on research in applied physics including industrial physics, thermionic emission, electric and magnetic properties of solids, ultra-sonics, low temperature physics, radio propagation, crystal physics, etc. It maintains and conducts research on basic standards of mass, length, time and temperature as well as on derived standards for electricity, electronics, etc. Developmental testing of balances, weights and measures, radio and TV receivers, optical instruments, electronic instruments and temperature measuring devices, etc., is also undertaken. Major projects in progress include development of an ultra-sonic aid for the blind, gas lasers, TV tubes, low pressure liquefier, electronic desk calculator and microwave components.

Central Fuel Research Institute, Dhanbad

This Institute undertakes fundamental and applied research on fuels—solid, liquid and gaseous. Coal being an important source of energy for economic development, this Institute conducts physical and chemical surveys of Indian coals through seven coal survey stations located at Jealgora, Namkum, Nagpur, Jammu, Raniganj, Jorhat and Bilaspur.

Central Glass and Ceramic Research Institute, Calcutta

The Central Glass and Ceramic Research Institute was set up in Calcutta in 1950 to meet the increasing demand of glassware and ceramic products in the country. Besides conducting research, this Institute undertakes standardisation of raw materials and finished products and provides technical assistance to industries. A mica research unit also forms part of the Institute.

Central Food Technological Research Institute, Mysore

This Institute deals with all aspects of food technology, particularly, research in the development of modern methods of storage, preservation, packaging, handling and processing of food materials. It also undertakes the development of nutritious, supplementary and substitute foods; investigation on cereals and proteins; spices and flavours; confectionary, fruits and vegetables; meat, fish and poultry products and evaluates the nutritive value of food products. It imparts training to food technologists. Experimental stations of the Institute are located at Trichur, Mangalore, Anantharajupet, Bombay, Nagpur, Lucknow and Ludhiana. The Institute has developed a process for the manufacture of baby food which has resulted in the saving of foreign exchange worth several crores of rupees.

National Metallurgical Laboratory, Jamshedpur

This Laboratory carries out basic and applied research on indigenous ores and minerals, ferrous and non-ferrous metals and alloys and assists in the growth of the metallurgical industries in the country. Its regional foundry stations are located at Batala, Madras, Howrah and Ahmedabad.

Central Drug Research Institute, Lucknow

Study of plant drugs, standardization of crude drugs, design and synthesis of new chemotherapeutic agents based on detailed biochemical studies of selected disease processes and discovery of new antibiotics are the main functions of the Institute. The Institute has made attempts to manufacture standard drugs from indigenous herbs in order to reduce the import of antibiotics, antimalarials and sulpha drugs. It has also developed a contraceptive device, named Centsquare, which is of considerable significance to the family planning programmes.

Central Road Research Institute, New Delhi

The main function of the Institute is to find solutions for the varied problems of road construction, maintenance and improvement. It undertakes research on new methods of road construction, traffic and road safety and on standards and specifications for road building plant and machinery.

Central Electro-Chemical Research Institute, Karaikudi

The Institute carries out exploratory, applied and fundamental research in electro-chemistry, particularly, electrolytic production of organic and inorganic chemicals, electro-metallurgy and electric furnace products. Its field stations are located at Madras and Mandapam.

Central Leather Research Institute, Madras

The main functions of the Central Leather Research Institute, Madras, are the development of technology for the manufacture of a wide variety of leathers, leather auxiliaries and allied products, and design of leather machinery and implements. Utilization of promising tanning materials in place of imported materials and development of speciality leathers are the main themes of work. Its regional extension centres are located at Bombay, Calcutta, Kanpur, Rajkot and Jullundur.

Central Building Research Institute, Roorkee

The Institute undertakes research on building and allied branches of civil engineering including building materials, foundation engineering, building techniques, design and functional efficiency, building economics and management and other user requirements. Its field research station is located at Calcutta and extension cells at Ahmedabad and Bhopal

National Botanical Gardens, Lucknow

The main functions of this Institute are collection, introduction and propagation of ornamental plants; botanical, horticultural and phytochemical research on economic plants; setting up of herbaria and botanic museums, especially of economic plants; and identification, supply and exchange of plant materials. It has a research station at Banthra.

Central Electronics Engineering Research Institute, Pilani

The Institute, established in 1953, undertakes research and development work in audio-engineering, communications, broadcast receivers, electronic instrumentation and control, solid-state devices, special purpose vacuum tubes and microwave components. The television receivers designed and developed by CEERI by utilizing mostly indigenous components and materials are already under production and have reduced imports. It has also developed transistorised TV receivers using 12-inch picture tubes. The Institute has also developed the excitation control system for diesel electric locomotives.

Central Salt and Marine Chemical Research Institute, Bhavnagar

Improvement of the quality of sodium chloride used for various industrial purposes, utilization of by-products from marine and inland lake bitterns and recovery, production and utilisation of marine chemicals are some of the functions of the Institute.

Central Mining Research Station, Dhanbad

The Institute conducts research on methods of mining, safety in mines and health hazards to persons working in mines. It also undertakes development of mine machinery and testing of equipment used in mines.

Regional Research Laboratory, Hyderabad

The Laboratory undertakes research on problems relating to the industries and raw materials of the region covering the following fields: oils and fats, surface coatings, coal, organic chemicals and drugs, industrial ceramics, paper and cellulose products, mineral products and catalysts. The laboratory also conducts research in biochemistry and chemical engineering.

Indian Institute of Experimental Medicine, Calcutta

The Institute carries out fundamental research in biological sciences for the solution of medical problems. Its research programmes cover biochemistry, microbiology, medicinal chemistry and pharmacology.

Central Mechanical Engineering Research Institute, Durgapur

The Institute conducts research in mechanical engineering comprising design and development of capital machinery, machine components and elements. It has its research and development centres located at Madras, Ludhiana and Poona.

Regional Research Laboratory, Jammu-Tawi

This Laboratory undertakes research on problems relating to the industries and raw materials of the north-west Himalayan region, with particular reference to the medicinal plants. Its branch laboratory is located at Srinagar and field research station at Jammu.

Central Public Health Engineering Research Institute, Nagpur

The Institute undertakes research concerned with water treatment and supply, river and stream sanitation, treatment and disposal of sewage and industrial wastes, industrial hygiene and air pollution and rural sanitation. Its field/zonal centres are working at Bombay, Calcutta, Delhi, Hyderabad, Ahmedabad, Kanpur, Jaipur and Madras.

Central Indian Medicinal Plants Organisation, Lucknow	Medicinal and aromatic plants are in great demand in the country. This Organisation undertakes to devise improved methods of their cultivation, breed high-yielding varieties and strains and introduce exotic plants rich in active principles. It has two zonal centres at Jammu-Tawi and Bangalore and four commercial centres at Haldwani, Bangalore, Jammu and Srinagar.
National Aeronautical Laboratory, Bangalore	This Laboratory undertakes scientific investigation of the problems of flight with a view to their practical application to the design, construction and safe operation of aircraft in India.
Regional Research Laboratory, Jorhat	This Laboratory undertakes research and development work relating to more efficient utilization and better conservation of the natural resources of Assam and surrounding areas, such as, coal, petroleum, limestone, bamboo, reeds and waste products like saw dust and tea waste.
Indian Institute of Petroleum, Dehra Dun	Research and development work on the processing and utilization of crude petroleum and natural gas and in the field of petrochemicals and related subjects are the main functions of the Institute.
Central Scientific Instruments Organisation, Chandigarh	The chief function of this Organisation is the promotion and development of indigenous manufacture of scientific instruments for teaching, research and industry. It also undertakes repair and maintenance of scientific instruments and training of instrument mechanics. Its service and maintenance centres are located at New Delhi, Madras and Calcutta.
National Geophysical Research Institute, Hyderabad	The main objectives of the Institute are: (i) to undertake fundamental and applied research in various branches of geophysics and geology, and (ii) to develop techniques, operational methodologies and improved instrumentation for the prospecting of minerals, oil and groundwater.
Regional Research Laboratory, Bhubaneswar	This Laboratory undertakes research and development work relating to the natural resources of the region, *i.e.*, forest produce (paper, pulp and fibre), leather, fish and fish oils, agricultural and animal husbandry products, minerals and ores.
Structural Engineering Research Centre, Roorkee	This Centre conducts research in specialised design and structural problems connected with buildings, bridges and other structures and undertakes the development of utility computer programmes for the analysis and design of 'repeat' structures, such as, multi-storeyed buildings, pre-stressed beams, shell roofs, folded plates and transmission line towers. Its regional centre is located at Madras.
Industrial Toxicology Research Centre, Lucknow	Harmful effects of industrial toxins on skin, blood, gastro-intestinal tracts, central nervous system, bones, etc., are studied in this Centre with a view to developing preventive measures.
National Institute of Oceanography, Panaji	Research on various aspects of physical, biological, geological and chemical oceanography, including prospecting for petroleum and minerals in sea bed and processing of oceanographic data, is carried out by the National Institute of Oceanography, Panaji.

Publications and Information Directorate, New Delhi

Publications & Information Directorate of the Council of Scientific and Industrial Research publishes encyclopaedic volumes on the raw materials and industrial products of India under the general title 'The Wealth of India' and journals and other publications disseminating scientific and technical information. It also handles technical enquiries on the natural resources of the country. The Unit also publishes books on science subjects in various Indian languages.

Indian National Scientific Documentation Centre, New Delhi

The primary function of this Centre is to provide documentation services, to translate scientific papers from foreign languages into English and to maintain the National Science Library. It also publishes *Indian Science Abstracts* and *Annals of Library Science and Documentation.* It also compiles a series of catalogues which list the holdings of libraries and establishments, such as, the Indian Institute of Science and the Indian Agricultural Research Institute.

Birla Industrial and Technological Museum, Calcutta

This Museum depicts the progress made in the scientific and technological fields. The Museum has ten galleries depicting a chronological history of science and technology through working models, animated exhibits, dioramas and illustrated charts, which explain the basic principles of science in a lucid manner.

Visvesvaraya Industrial and Technological Museum, Bangalore

This Museum arranges workshops, mobile exhibitions, demonstration lectures, student fairs and seminars to depict advancements in science and technology. It has two galleries on electro-technics and motive power.

SPONSORED RESEARCH

The Council of Scientific and Industrial Research also assists specific projects in research establishments including industrial laboratories and universities by giving grants for equipment, scientific and technical personnel and award of scholarships and fellowships. For this purpose, the Council is advised by the Board of Scientific and Industrial Research, which in turn is assisted by various expert research committees. Thirteen such research committees are functioning at present. Six hundred and twenty-two research schemes, employing 183 senior research fellows and 558 junior research fellows, were in progress in various university departments and research institutions during 1971. As many as 2,241 research fellows pursued research during 1971 under the Council's grants-in-aid schemes. Of these, 546 held senior fellowships and 1,695 held junior fellowships.

RESEARCH UTILISATION

The Council has, since its inception, given attention to the utilization by industry of the results of researches carried out in its laboratories and under the Council-supported research schemes. The Council released 92 processes to industry for commercial utilization during 1971 bringing the total number of processes released to 491. Of these, 229 processes are reported to have been in production. The total amount accruing from premia, royalty, consultation, testing and analysis, etc., during the same period amounted to about Rs 58 lakhs. One hundred and three patents were filed in India and 18 patents in foreign countries.

RESEARCH ASSOCIATIONS

Research associations in different industrial fields are being provided financial assistance by the CSIR. The Council also renders assistance by way of technical advice, preparation of plans and procurement of expertise and materials. Nine industrial research associations (three for cotton textiles and one each for art silk, wool, jute, plywood, tea and cement) receive grants from the Council. The School of Research and Training in Earthquake Engineering, Roorkee and the Unit for Manufacture of Rare Biochemicals, Vallabhbhai Patel Chest Institute, Delhi, continue to get financial assistance from the Council.

SCIENTISTS' POOL

The Council introduced the 'Scientists' Pool' in 1958 to provide temporary placements to well-qualified Indian scientists, engineers, technologists and medical personnel returning from abroad. The scheme was later extended to highly qualified Indian scientists who had not been abroad. Since the inception of this scheme, 8,257 persons had been selected for the 'Scientists' Pool' at the end of 1971, of whom 397 were working as Pool Officers.

ATOMIC ENERGY

The Atomic Energy Commission is responsible for planning and formulating the programme for the development of atomic energy for peaceful purposes. The programme, which is executed by the Department of Atomic Energy, aims at encouraging the use of atomic energy in agriculture, biology, industry and medicine, mainly through the production and application of radio-isotopes and radiation sources and the utilisation of nuclear energy as a source of cheap electric power.

The principal centre for research and development in atomic energy is the Bhabha Atomic Research Centre (BARC) at Trombay near Bombay. The Centre provides the requisite expertise and trained personnel for the atomic energy programme. There are three research reactors at Trombay—"Apsara", a one megawatt swimming pool type reactor; "Cirus", a 40 mw Canada-India reactor; and "Zerlina", a zero energy experimental reactor. Besides being utilized for research work, "Apsara" and "Cirus" are also made use of for producing radio-isotopes. Supporting facilities at Trombay include a thorium plant, a uranium metal plant, a heavy water reconcentration plant, a fuel element fabrication plant, a plutonium plant, a 5.5 MeV Van-de-Graaff accelerator, plus a number of laboratories and workshops. In recent years, an electronics prototype engineering laboratory and a reliability evaluation laboratory have been added to the existing facilities. The fuel element fabrication plant produces fuel elements for the "Cirus" and "Zerlina" reactors. This plant is also used for research and development work in fuels and reactor materials. India is among the dozen or so countries in the world to have an operational plutonium plant for reprocessing irradiated fuel elements to obtain plutonium, a valuable fissile material useful for future power reactors. A zero energy fast reactor was commissioned at BARC in May 1972. The reactor was designed and engineered by scientists at BARC and is part of the scheme to build a pulsed fast reactor.

The Bhabha Atomic Research Centre at Trombay produces 350 different types of radioactive products, of which a part is exported. During 1971-72, countries buying Trombay-produced isotopes and equipment included France, Sweden, Hungary, Denmark, Australia, Ethiopia, Argentina, Burma, Cambodia and a few other developing nations.

The Radiation Medicine Centre of BARC is concerned with the medical applications of radio-isotopes. It has developed extensive research facilities for diagnostic and therapeutic applications of radioisotopes. Work in this field is also done by the Tata Memorial Centre, Bombay, which is administratively responsible to the Department of Atomic Energy.

The Electronics Corporation of India Ltd., Hyderabad, manufactures electronic instruments and equipment for meeting both the nuclear and non-nuclear needs of the country.

A nuclear fuel complex is being built at Hyderabad. Heavy water plants are being set up at Kota in Rajasthan, Baroda in Gujarat and at Tuticorin in Tamil Nadu. At Tarapur, a power reactor fuel reprocessing plant is under construction.

The Directorate of Radiation Protection of the Department of Atomic Energy is responsible for a country-wide programme of radiation safety. It runs a film badge service which currently covers nearly 1,600 institutions representing over 24,000 radiation workers. The Directorate has developed a number of monitoring instruments which are being produced by the Electronics Corporation of India Ltd.

A seismic array at Gauribidanur in Mysore State detects underground nuclear explosions while eleven monitoring stations at different locations in the country measure radioactive fall-out from atmospheric nuclear explosions.

In the field of agriculture, considerable work has been done to study the biological actions of ionising radiations, the induction of mutations in plants of economic importance, such as, rice, groundnut, etc., and to develop methods of preservation of food by irradiation. Several mutants of scientific and economic value have already been isolated. They include improved strains of rice and groundnut which are now undergoing trials. Significant advances have also been made in the control of insect pests in stored grain by radiation.

A radiation sterilisation plant with a capacity to sterilise 3,00,000 cubic feet (approximately 8,500 cubic metres) of medical products per year is under construction at Trombay. The products to be sterilised include cotton wool, catheters, disposable syringes, sutures, surgeons' gloves, etc.

The Atomic Minerals Division of the Department is responsible for exploration, survey and location of important atomic minerals. It is also engaged in developing mineral technology. A public sector undertaking, namely, the Uranium Corporation of India Ltd., operates a uranium mine and mill at Jaduguda in Bihar. The Indian Rare Earths Ltd., another Government undertaking, is responsible for commercial exploitation of the mineral sands on the beaches of Kerala and Tamil Nadu.

The country's first 400 mw nuclear power station at Tarapur near Bombay has been in operation since October 1969. Two other nuclear power stations, one at Rana Pratap Sagar in Rajasthan and the other at Kalpakkam near Madras, are in various stages of construction. These have been dealt with in detail under the chapter "Irrigation & Power". A reactor research centre for studies in fast reactor concepts is being set up next to the Kalpakkam nuclear plant site.

Financial assistance to the universities and research institutions is provided by the Department of Atomic Energy to promote research in various branches of nuclear science.

The Tata Institute of Fundamental Research, Bombay, is the national centre for advanced study and fundamental research in nuclear science and mathematics. Other institutions receiving assistance are the Saha Institute of Nuclear Physics, Calcutta and the Physical Research Laboratory, Ahmedabad. A high altitude research laboratory is functioning at an altitude of 2,750 metres at Gulmarg in Kashmir. A radio astronomy centre has been set up at Ootacamund and a large radio telescope in the form of a cylindrical parabolic antenna, 530-metre long and 30-metre wide, is being operated at the Centre. Fellowships and scholarships, tenable in various universities and science institutions in India, are also provided.

Close liaison and contact is maintained with international bodies concerned with the peaceful uses of nuclear energy. Bilateral agreements for collaboration in the development of atomic energy for peaceful uses have been concluded with a number of countries.

SPACE RESEARCH

In June 1972, the Government set up a Space Commission and a Department of Space Research which took over the responsibility for the country's space programme from the Department of Atomic Energy. The Prime Minister holds charge of the Department of Space Research.

Among the major establishments engaged in space research work are: (i) Thumba Equatorial Rocket Launching Station (TERLS)—a UN-sponsored sounding rocket range near Trivandrum, (ii) Space Science and Technology Centre (SSTC) next to TERLS, (iii) a rocket propellant plant and a rocket fabrication plant—both at Thumba, and (iv) the Experimental Satellite Communications Earth Station (ESCES) at Ahmedabad, and a number of associated technical units. A second rocket range at Sriharikota in Andhra Pradesh is being developed as a satellite launching range. The Space Science and Technology Centre is responsible for developing space technology, including rockets, propellants, control and guidance instrumentation, etc. It also has the responsibility for developing a satellite launch vehicle for the planned satellite launch attempt in mid-1974.

The Physical Research Laboratory at Ahmedabad has played a pioneering role in the country's space programme, somewhat akin to that played by the Tata Institute in the early years of the nuclear programme. The Laboratory participates with SSTC and TERLS in developing and conducting space experiments and instrumentation.

The Experimental Satellite Communications Earth Station (ESCES) at Ahmedabad is mainly engaged in imparting training in satellite communications technology to engineers from India and other developing countries. The Station was engaged in building the commercial satellite communications earth station at Arvi near Poona. The Arvi station, which is now functioning, operates through the Intelsat III satellite positioned over the Indian Ocean.

India has a programme to conduct a satellite-TV experiment in collaboration with NASA of USA which is scheduled to start in mid-1974. In this programme, instructional material produced in India will be beamed to 5,000 villages in selected sectors of the country through NASA's ATS-F satellite. The programme will be the first phase of a National Satellite Communication (NASCOM) project. This is expected to be followed by a full-scale nation-wide system covering all the villages in the country by means of a domestic satellite.

MEDICAL RESEARCH

The Indian Council of Medical Research has been engaged in promoting and co-ordinating medical research in India since 1912. It maintains, besides a number of semi-permanent units, seven permanent research institutes/centres. They are the National Institute of Nutrition, Hyderabad; Virus Research Centre, Poona; Tuberculosis Chemotherapy Centre, Madras; Cholera Research Centre, Calcutta; Indian

Registry of Pathology, New Delhi; National Institute of Occupational Health, Ahmedabad; and the Institute for Research in Reproduction, Bombay. The research activities of the Council cover a wide spectrum These include: anatomy, biochemistry, cellular and molecular biology, environmental physiology and medicine, human genetics, immunology and allergy, pharmacology and toxicology, physiology, cardiovascular diseases and hypertension, clinical endocrinology, clinical and experimental oncology, dental health, exfoliative cytology, experimental medicine and surgery, gastro-enterology, haematology, health practices, medical education, mental health neurology, opthalmology, organ transplantation, pathology, urology and nephrology, cholera, environmental hygiene and occupational health, leprosy, microbiology, tuberculosis and chest diseases, venereal and dermatology diseases, virus and anthropod-borne diseases, maternal health, nutrition, paediatrics, reproductive biology and fertility control.

Problems relating to cancer are under investigation at different institutions. The Council has also initiated the epidemiology of oral cancer and cervical cancer.

A brief description of some other institutions engaged in medical research is given below:

The National Institute of Communicable Diseases, Delhi (erstwhile Malaria Institute of India), carries out research in communicable diseases. This Institute has also been designated as WHO Reference Centre.

The All India Institute of Medical Sciences, New Delhi and the Post-Graduate Institute of Medical Education and Research, Chandigarh, which were set up as statutory bodies, conduct research in various branches of medical science.

The All India Institute of Hygiene and Public Health, Calcutta, conducts research and training in public health and its allied disciplines at post-graduate levels. Rural Health Unit and Training Centre, Srinagar and Urban Health Centre, Chetta, are attached to this Institute.

The School of Tropical Medicine, Calcutta, carries out research in diseases peculiar to tropical areas.

The King Institute of Preventive Medicine, Guindy (Tamil Nadu), is concerned with the manufacture and supply of vaccines, sera, blood products, sterile solutions and diagnostic reagents,. It also carries out microbiological investigations and is a recognised post-graduate teaching centre in microbiology.

Research in tuberculosis and other chest diseases is conducted at the Vallabhbhai Patel Chest Institute, Delhi. Studies of the morphology of tubercle bacilli and the effect on them of the different drugs constitute a special feature of its investigations. The National Tuberculosis Institute, Bangalore, also conducts research in the control of tuberculosis and trains persons for the National Tuberculosis Programme.

Investigations on cancer are carried out at the Indian Cancer Research Centre, Bombay. Statistical surveys of the incidence of cancer in India have also been undertaken by it. Research in cancer is also being conducted at the Chittaranjan Cancer Research Centre, Calcutta. The Cancer Institute, Madras, established in 1955, has also grown into a major cancer therapeutic and research centre in the country.

The Central Leprosy Teaching and Research Institute, Chingleput, conducts research investigation on clinical, bacteriological, historical and epidemiological aspects of leprosy. It also treats leprosy patients and arranges training courses for medical and para-medical personnel engaged in leprosy control work.

The Haffkine Institute, Bombay, carries out research in the fields of bacteriology, experimental medicine, chemotherapy, pharmacology, pathophysiology, biochemistry, nutrition, haematology, immunology and virology related to communicable and other diseases. It also undertakes drug analysis and biological standardization. The Institute trains scientists for post-graduate degree and provides public health laboratory services by way of diagnosis of diseases and epidemiological investigations. It manufactures some bacterial and viral vaccines, anti-toxins and other biologicals, such as, human plasma and plasma fractions.

Investigations at the Central Research Institute, Kasauli, relate to the problems of microbiology, virology, immunology and biochemistry. The Institute maintains a pathological museum and serves as a centre for the collection and distribution of bacterial type culture and international standards of toxins and anti-toxins.

The Pasteur Institute, located at Coonoor, is engaged in research on rabies, influenza, other respiratory virus infections, diseases caused by intestinal viruses like polio, coxsackie and Ectto group and smallpox, and bacterial diseases like enteric fevers, syphilis, etc.

The activities of the Central Drugs Laboratory, Calcutta, centre round biological and chemical assays of drugs. The Laboratory maintains a herbarium and renders technical advice to concerns manufacturing drugs.

Besides, there are several private-owned research organisations which conduct research on a large range of problems which have a bearing on the prevention, control and cure of diseases.

DEFENCE RESEARCH

The Defence Research and Development Organisation (DRDO), which was set up in 1958 by amalgamating some of the technical development staff establishments of the Defence Science Organisation, has grown rapidly. It has, at present, under its control about 30 research organisations, development establishments and laboratories engaged in such fields as armaments, electronics, aeronautics, engineering, high altitude research and food research. Expenditure on defence research has grown from about Rs 1·5 crores in 1958-59 to about Rs 18·81 crores in 1970-71. The estimated number of scientific and technical personnel engaged in DRDO also rose to 4,747 in 1968-69 from 1,500 in 1958-59.

The Defence Research and Development Organisation maintains close liaison with the scientific and technological activity within the country and abroad. Over a thousand research and development projects are in progress in the various divisions of the Organisation. The National Committee on Science and Technology has appointed a special group to liaise with the Defence Ministry to ensure that all the resources of civil science are mobilized for meeting the urgent needs of defence.

AGRICULTURAL RESEARCH

The Indian Council of Agricultural Research, established in 1929, is an apex body to promote educational and research interests of the country in the fields of agriculture and animal husbandry. Its objectives are to plan, undertake, aid, promote and co-ordinate agricultural and animal husbandry education, research and its application in practice. The Council has been reorganised into a body comprising predominantly of scientists for co-ordinating, directing and promoting agricultural research and education in the whole country.

The ICAR is functioning through a fabric of 23 national and central scientific institutes, 17 agricultural universities, 69 all-India co-ordinated projects and a few public and quasi-public institutions in the country. The national institutes are functioning directly under the administrative control of the Council.

The Union Government is financing the activities of the Council through lump sum and recurring grants, appropriate share of duties levied on commodities under the Produce Cess Act, 1960 and proceeds of cess realised under the A.P. Cess Act, 1940. The Council is providing maximum possible support and assistance for the establishment and development of one agricultural university in each State.

The ICAR also supports schemes for research in agriculture, animal husbandry and fisheries through a national grid of all-India co-ordinated research projects.

OTHER DEPARTMENTAL RESEARCH ACTIVITIES

Since its inception in 1971, the Department of Science and Technology has taken over the control of the Survey of India, the National Atlas Organisation, the Botanical Survey of India and the Zoological Survey of India.

Survey of India

The primary role of the Survey of India with headquarters at Dehra Dun is to carry out topographical surveys and to prepare up-to-date maps including surveys for boundary demarcation. It also undertakes surveys connected with development or for defence.

The Centre for Survey Training and Map Production, Hyderabad, carries out research and development activities ragarding map production.

The Indian Photo Interpretation Institute, Dehra Dun, imparts training in photo-interpretations.

The National Atlas Organisation

This Organisation with headquarters at Calcutta is engaged in the compilation of the National Atlas of India. It has already printed about 52,000 copies in physical, climate, population and agricultural series of the National Atlas.

Botanical Survey of India

Located at Calcutta, it appraises the plant wealth in the country and maintains five regional circles at Allahabad, Coimbatore, Dehra Dun, Poona and Shillong, in addition to a Central Botanical Laboratory, a Central National Herbarium and Botanical Gallery in the Indian Museum in Calcutta. The Survey also maintains the Indian Botanical Garden, Sibpur (Howrah), which has undertaken a new project of setting up a Germ-Plasm Bank where the wild relatives of cultivated and botanically important plants, namely, citrus, vitis, etc., are preserved in living conditions.

Zoological Survey of India

With headquarters at Calcutta, it maintains the standard zoological collections of India, identifies zoological specimens, collects information on the zoology of India and brings out journals, monographs and books. Regional stations have been established at Dehra Dun, Jabalpur, Jodhpur, Madras, Patna, Poona and Shillong. A high altitude zoology field station was established in September 1968 at Solan to explore high altitude fauna.

During 1971-72, extensive and intensive explorations of Andaman and Nicobar Islands were conducted for general fauna. Corbett National Park has been surveyed for studies on population, ecology and social behaviour of monkeys.

Oceanography A number of governmental and educational agencies are, at present, engaged in oceanographic research in the country. The Department of Science and Technology is studying a plan to establish a Central Board of Oceanography, with a view to providing a unified approach to the problems of ocean and atmosphere, exploitation of its resources and dissemination of oceanographic data.

Geology The Geological Survey of India, with headquarters in Calcutta and established more than 120 years ago, conducts geological, geophysical and geochemical surveys; prospecting, exploration and assessment of mineral resources, including water, by drilling and exploratory mining; and research to develop and adopt new techniques and methods leading to advances in research and exploration and fundamental research in geology, geochemistry and allied fields. The results of these studies are disseminated through different publications of the GSI. The department functions through five regional offices and 23 circle offices.

Hydraulic Research There are eleven hydraulic research stations under the Central Board of Irrigation and Power. The Central Water, Power and Irrigation Research Centre at Khadakvasla near Poona, is the pioneer hydraulic research station in India. Work on fundamental and basic research schemes on problems of river valley projects, power stations and transmission systems is connected through 20 irrigation and 18 power research stations in the country under the supervision of the Central Board of Irrigation and Power.

Meteorology The India Meteorological Department, organised on an all-India basis in 1875, is the national agency for providing services in the field of meteorology. Meteorological data are collected from over 900 observatories of different kinds and processed. The department, along with the Indian Institute of Tropical Meteorology (IITM), Poona, conducts fundamental and applied research in various aspects of meteorology, such as, weather forecasting, climatology, agricultural meteorology, hydrology and instrumentation. Research is also carried out in seismology, besides maintaining seismological observatories. The Indian Institute of Astrophysics, Kodaikanal and the Indian Institute of Geomagnetism, Bombay, responsible for research in the field of astrophysics and geomagnetism respectively, have been constituted as autonomous Institutes along with the IITM, Poona.

Broadcasting All India Radio maintains a research unit in New Delhi to investigate problems relating to the propagation and reception of radio waves and the design and performance of radio receivers.

Civil Aircraft The Directorate of Research and Development under the Ministry of Transport is concerned with the development and supervision of design, air-worthiness of civil aircraft and equipment, aircraft performance testing, development and approval of indigenous aircraft materials, design and manufacture of prototypes of gliders and light training aircrafts selection of suitable aircraft types for civil operations and other problems of advanced technical nature relating to safety in air operations.

Railways

The Railway Board has established a research centre at Lucknow known as the Research, Designs and Standards Organisation with sub-stations at Chittaranjan and Lonavla to investigate problems referred to them by the railway workshops and the Central Standards Office (Railways).

Roads

The problems of road development and road materials, highways and bridges, engineering, ports and harbours, etc., are dealt with by the Indian Roads Congress functioning under the Ministry of Transport.

Forests

The Forest Research Institute at Dehra Dun conducts research on the utilisation of timber for constructional purposes.

Anthropology

The Anthropological Survey of India, with headquarters at Calcutta, is responsible for conducting anthropological surveys including social, psychological, economic, linguistic, physical, genetic and instructional investigations. Its regional stations are located at Andaman and Nicobar Islands, Dehra Dun, Mysore, Nagpur and Shillong.

National Research Development Corporation

The main function of the National Research Development Corporation (an autonomous organisation) with headquarters at New Delhi is to give further support to the results of research and provide risk investment in order to bring the process to a stage from where industry can utilize it. In December 1971, a contract between the NRDC and a private electronics manufacturing firm of Jaipur, was signed which provides for the transfer of technology for making silicon planer transistors. The know-how for the manufacture of these transistors was developed at the Central Electronics Engineering Research Institute, Pilani.

The annual production from commercial exploitation of researches is continuously increasing and the total value of production from the processes licensed by the Corporation up to 31 March 1972 was about Rs 38·29 crores, which has resulted in foreign exchange saving of Rs 28·30 crores.

Other Institutions

The Department of Science and Technology gives grants to a number of private research institutions, associations, scientific academies and societies for execution and development of their research activities, publication of scientific journals and literature, holding conferences, symposia and seminars, institution of fellowships, purchase of equipment and construction of laboratories. The more important of these institutions are:

The Bose Institute, Calcutta, is engaged in research in physics, chemistry, plant physiology, plant breeding, cytogenetics, microbiology and zoology.

The Birbal Sahni Institute for Palaeobotany, Lucknow, carries out research in the fossil flora of India and related problems.

The Indian Association for the Cultivation of Science, Calcutta, conducts research in fundamental and applied aspects of physics and chemistry.

Wadia Institute of Himalayan Geology, Delhi, promotes studies on the geology of Himalayas, their mineral resources, rivers, glaciers, etc., in co-operation with Indian universities interested in the field.

The Maharashtra Association for Cultivation of Science, Poona, conducts research in botany, mycology, plant pathology, entomology, biochemistry and soil science.

Raman Research Institute, Bangalore, is working in the fields of crystallography, liquid crystals and radio-astronomy. The work on liquid-crystals has won international recognition for the Institute.

The Indian Institute of Science, Bangalore, undertakes advanced instructions and conducts original investigation in all branches of scientific knowledge.

The Physical Research Laboratory, Ahmedabad, is a centre for research in atmospheric physics, cosmic rays. electronic and theoretical physics.

Shri Ram Institute for Industrial Research in Delhi renders research service to industrial concerns.

The Himalayan Zoological Park, Darjeeling, maintains the fauna of the Himalayan region, including some rare species of Siberian tigers.

The Indian National Science Academy (formerly National Institute of Sciences in India) promotes scientific research by organising lectures by distinguished scientists on different subjects, summer schools and symposia, etc. It also maintains liaison with international scientific institutions in different parts of the world, conducts studies in the history of Indian science and brings out scientific journals.

Several colleges and universities also provide courses of study and research facilities in various branches of science.

8 HEALTH

Over twenty years of planned development has raised the expectation of life at birth from 32 years to 50 years. The incidence of major diseases has come down considerably. The number of hospital beds has more than doubled, while that of medical colleges has trebled. The doctor-population ratio has improved. The law relating to the termination of pregnancy has been made more liberal.

OBJECTIVES

Health programmes are primarily the responsibility of the State Governments. The Union Government, however, sponsors and supports major schemes for improving the standard of health of the people. The broad objectives of the health programmes so far have been to control and eradicate communicable diseases, to provide curative and preventive health services in rural areas through the establishment of a Primary Health Centre in each Community Development Block and to augment programmes for the training of medical and para-medical personnel.

In the Fourth Plan, efforts are being made to build up an effective base for health services in rural areas by strengthening the Primary Health Centres. These will provide preventive and curative health services, take over the maintenance phase of programmes for the control of communicable diseases and become the focal points for the family planning programme. Sub-divisional and district hospitals will be further strengthened to serve as referal centres for the Primary Health Centres. The campaigns against communicable diseases will be intensified. Medical education and training of para-medical personnel will be expanded to meet the minimum technical manpower requirements.

OUTLAYS UNDER THE PLANS

In the first three Five Year Plans, the total outlay on various health programmes was Rs 585·90 crores. The allocation for the Fourth Plan is Rs 433·53 crores. The outlays for major programmes and the expenditure incurred on them during the first three years of the Fourth Plan are shown in Table 8·1.

TABLE 8.1
Distribution of Outlays for the Fourth Plan

(*Rs crores*)

Programme	Fourth Plan outlay	Expenditure (1969–72)
Medical education & research	85.29	39.70
Training programmes	12.93	2.72
Control of communicable diseases ..	127.01	52.79
Hospitals & dispensaries	88.29	35.56
Primary Health Centres	76.49	13.56
Indigenous systems of medicine	15.83	6.13
Other programmes	27.69	10.67
Total	433.53	161.13

PROGRESS

The steady progress in the health of the people is reflected in broad terms in Tables 8·2 and 8·3. Table 8·2 shows life expectancy at various stages for the two decades 1941-50 and 1951-60. The expectation of life at birth during 1961-65 was 45·7 years for males and 44·3 for females. It was 48·2 years for males and 46·0 for females during 1966-70.† Table 8·3 indicates the birth, death and population growth rates.

TABLE 8.2
EXPECTATION OF LIFE AT VARIOUS STAGES

Age	Expectation of life			
	1941–50		1951–60*	
	Male	Female	Male	Female
0	32.5	31.7	41.9	40.6
10	40.0	39.5	45.2	43.8
20	33.0	32.9	37.0	35.6
30	26.6	26.2	29.0	27.9
40	20.5	21.1	22.1	22.4
50	14.9	16.2	16.5	17.5
60	10.1	11.3	11.8	13.0

(*per thousand*)

TABLE 8.3
BIRTH, DEATH AND POPULATION GROWTH RATE

Year	Birth rate	Death rate	Growth rate
1941–50**	39.9	27.4	12.5
1951–60**	41.7	22.8	18.9
1961–65†	41.1	19.2	21.9
1966–70†	38.8	17.0	21.8

† Based on Expert Committee Projections provisionally revised in the light of 1971 Census Provisional Population Totals.

* Census of India, 1961.

** Census of India, 1971: Paper I of 1971–Supplement Provisional Population Totals.

PREVENTION AND CONTROL OF DISEASES

To prevent and control some of the major diseases which took a heavy toll of life and resulted in economic loss to the country, a number of national programmes are in operation.

Malaria

The National Malaria Control Programme, launched in 1953, was converted into the National Malaria Eradication Programme in 1958. The programme, which is expected to be completed by 1982-83, covers the entire population except about 1·5 crore people who live in places 5,000 ft. above sea level, where malaria transmission does not take place. The programme, which is Centrally-sponsored, is being assisted by the World Health Organisation. At present, 393·25 units, each covering 13 to 15 lakh people, are functioning. As a result, the percentage of clinical malaria cases has declined from 10·8 in 1953-54 to 0·15 in 1970-71.

Training of personnel in methods of malaria eradication is given at the National Institute of Communicable Diseases, Delhi, and the Regional Co-ordinating Organisations at Bangalore, Baroda, Bhubaneswar, Hyderabad, Lucknow and Shillong.

An allocation of Rs 89·44 crores has been made for this programme in the Fourth Plan.

Filaria

The National Filaria Control Programme, which has been made a Centrally-sponsored scheme in the Fourth Plan with full financial assistance, has been in operation since 1955. The programme comprises adoption of anti-mosquito and anti-larval measures, establishment of filaria clinics, provision of underground drainage in hyper-endemic cities and towns and setting up of bureaux of filaria at State level. It is estimated that over 13 crore persons live in the filarious areas of the country. Of these, about 80 lakhs are with various filarious disease manifestations and another 1·2 crore have microfilaria in their blood in endemic areas. To deal with the disease, 110 units have been set up, mainly in urban areas, to protect about 1·7 crore people by anti-larval measures.

In the Fourth Plan, an outlay of Rs 4·88 crores has been made for the programme.

Tuberculosis

The BCG Vaccination Programme was started in 1949 as a Centrally-sponsored scheme to control the spread of infection and to bring down the incidence of tuberculosis. It is estimated that there are nearly 75 to 80 lakh active radiological TB cases. Five hundred and thirty-two clinics have been set up to treat TB cases. About 25·09 crore persons had been tuberculin tested and 15·25 crore persons vaccinated till 31 March 1972. Training to doctors for the diploma course in tuberculosis is given at ten universities, while other personnel are trained at the National Tuberculosis Institute, Bangalore, the Vallabhbhai Patel Chest Institute, Delhi, and 15 TB Demonstration and Training Centres.

The Tuberculosis Association of India, which is the largest voluntary organisation, also assists in combating the disease. Another 200 District TB Associations all over the country provide assistance in anti-TB activities.

In the Fourth Plan, an outlay of Rs 18·50 crores has been earmarked for this programme.

Leprosy

The National Leprosy Control Programme was launched in 1955 as a Centrally-aided programme but from 1969-70 it was made a Centrally-sponsored scheme. The programme has two major components, namely, the establishment of leprosy control units in the hyper-endemic areas and the establishment of Survey, Education and Treatment (SET) centres in the moderately endemic areas. Thirty voluntary agencies, which are also involved in the control programme, receive assistance from the Central Government.

The number of people exposed to leprosy risk is about 30 crores, out of which 8·9 crores have been covered so far. The estimated leprosy cases are between 25 and 30 lakhs, of which about 5 to 6 lakhs are of the infectious type. Another 10 lakh cases have been recorded and are being given treatment by 227 leprosy control units, 1,442 SET centres and 30 voluntary agencies. The Reconstructive Surgery Programme has been intensified and leprosy patients with deformities of hands, feet and face now get facilities of corrective surgery in about 30 hospitals.

Training of medical and para-medical personnel is conducted by the Central Leprosy Teaching and Research Institute, Chingleput (Tamil Nadu) and 11 other training centres. The Central Leprosy Advisory Committee advises the Union Government on the implementation of the programme.

An allocation of Rs 5·12 crores has been made in the Fourth Plan for the expansion of this programme which is also receiving assistance from WHO and UNICEF.

Venereal Diseases

In the Fourth Plan, the VD control scheme has been made a Centrally-sponsored programme with full financial assistance Out of the 50 additional VD clinics to be set up during the Fourth Plan, 29 VD clinics have so far been established. This is in addition to 269 clinics already functioning in the country.

Training facilities in VD control are available at the Training Centre, Safdarjang Hospital, New Delhi, and the Institute of Venerelogy, Madras.

The financial allotment for VD control in the Fourth Plan is Rs 75·97 lakhs.

Influenza

An influenza centre is functioning at the Pasteur Institute, Coonoor, since 1950. The centre conducts research in problems relating to influenza in co-operation with influenza centres organised by WHO in different parts of the world.

Smallpox

The National Smallpox Eradication Programme, which was launched in 1962, is worked out through an intensive vaccination campaign and revaccination of selected groups of population against smallpox. Since the beginning of the programme about 19 crore primary vaccinations and 77·2 crore re-vaccinations have been performed. As a result, the disease has been largely contained. In 1971, 15,294 cases with 2,593 deaths were reported as against 83,943 cases with 26,225 deaths in 1967.

An outlay of Rs 13·76 crores has been provided for the programme in the Fourth Plan.

Trachoma

The National Trachoma Control Programme, which was launched in 1963, is basically a programme of health education. It is in operation as a Centrally-sponsored scheme with full financial assistance in Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Kerala, Jammu and Kashmir, Madhya Pradesh, Manipur, Meghalaya, Mysore, Punjab, Rajasthan and Uttar Pradesh.

Till March 1972, more than 4 crore people had been covered under the programme.

Cancer

There are 50 general hospitals in the country where facilities for cancer treatment are available in the form of radium and surgery.

Research into problems relating to cancer is primarily conducted at the S.N. Medical College, Agra; Indian Cancer Research Centre, Bombay; Chittaranjan Cancer Hospital, Calcutta; Chittaranjan Cancer Research Centre, Calcutta; Tata Memorial Hospital, Bombay; Cancer Institute, Kanpur; Radium Institute and Cancer Hospital, Hyderabad; Cancer Institute, Madras and Mission Hospital, Neyoor.

The Indian Council of Medical Research has also started a collaboration study of cancer on utrine cervix as part of the national study on cervical cancer at the Lady Hardinge Medical College, New Delhi, and Safdarjang Hospital, New Delhi.

MEDICAL RELIEF AND SERVICE

Medical relief and service is primarily the responsibility of the States. Certain charitable institutions also participate in providing medical relief. The number of beds in hospitals in 1971-72 was 2,69,825 as compared to 1,13,000 in 1956-57. In the rural areas there were 5,183 Primary Health Centres as against 725 in March 1956. The number of doctors and nurses during 1971-72 was estimated at 1,22,982 and 76,000 respectively. The targets for doctors and nurses set for the Fourth Plan are 1,37,930 and 88,000 respectively.

Central Government Health Scheme

The Central Government Health Scheme, launched on 1 July 1954, was initially limited to Central Government employees and their families in Delhi and New Delhi. It was later extended to Bombay, Allahabad and Meerut as well as to the staff and families of certain autonomous and semi-government organisations. Central Government pensioners and Delhi Police employees and their families are also now covered by the scheme. In certain selected areas in Delhi, the scheme has been extended to the public on payment of prescribed charges. During 1972-73, it is proposed to extend the facility to Calcutta, Kanpur, Madras and Nagpur. The total number of families covered by the scheme was about 2·5 lakhs in 1971-72 accounting for 11 lakh beneficiaries.

Primary Health Centres

The Primary Health Centre forms the base of the integrated structure of medical services in the rural areas. At present, 5,183 centres are functioning in the country. In the Fourth Plan, the scheme for setting up of such centres has been included in the Plans of the States. The strengthening of basic health services in the primary health centres in the malaria maintenance phase areas has been classified as a Centrally-sponsored scheme. Basic health services have been established in 2,773 primary health centres.

To strengthen the health and medical care programmes in the rural areas, 21 mobile training-*cum*-service hospitals have been established in various States. On the success of these pilot schemes, similar units are expected to be set up all over the country.

Medical Termination of Pregnancy Act

To safeguard the mother's health and sometimes life, the Medical Termination of Pregnancy Act* has been enforced from 1 April 1972. The Act provides for the termination of certain pregnancies by registered medical practitioners. It also provides that a medical practitioner shall not be guilty of any offence if he terminates a pregnancy on the ground that it involves risk to the life of the pregnant woman or of grave injury to her physical or mental health or there is a substantial risk that if the child is born, it would suffer from such physical or mental abnormalities as to be seriously handicapped. No termination of pregnancy shall be carried out at any other place except at a hospital established or maintained by the Government or at an approved place.

INDIGENOUS SYSTEMS OF MEDICINE

The Central Council of Research in Indian Medicine and Homoeopathy, established in 1969-70, is responsible for initiating, guiding and co-ordinating scientific research in the different aspects—fundamental and applied—of Ayurveda, Siddha, Homoeopathy and Unani systems of medicine, Nature Cure and Yoga. Boards have also been set up in all the States for the regulation of practice in indigenous systems of medicine.

Ayurvedic Studies and Research

The Gujarat Ayurvedic University, Jamnagar and the Post-graduate-*cum*-Research Centre at Banaras Hindu University conduct training courses in Ayurvedic studies.

Nine standardisation research units in Ayurvedic medicine are engaged in evolving standards for raw drugs, methods of manufacture and finished products.

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*The Act does not apply to Jammu and Kashmir.

Survey of medicinal plants is being conducted by 13 units in Andhra Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Kerala, Jammu and Kashmir, Mysore, Rajasthan, Tamil Nadu (Siddha) and Uttar Pradesh.

Unani

Research in Unani drugs is being conducted at the Clinical and Chemistry Research Unit at the Tibbia College, Aligarh Muslim University.

Homoeopathy

There are 71 institutions imparting training in homoeopathy which have been recognised by various States/Councils. Six of these are Government institutions. Research in homoeopathy is carried out under the Central Council of Research in Indian Medicine and Homoeopathy. A Homoeopathic Advisory Committee advises the Central Government in all matters relating to the development of homoeopathy.

Yoga

Research on the effects of Yogic treatments in various diseases is carried out at a number of places. Research on diabetes is being conducted at Viswayathan Yogashram, Delhi, and Patanjali Yoga Research Institute, Hyderabad. Research on obesity is being done at the Iswardas Chunnilal Yogic Health Centre, Bombay. The Delhi Yoga Sabha is investigating on the effect of Yogic treatments in refraction errors of eye and diseases of ear, nose and throat. Research on asthama and gastric troubles is conducted at the Yogic Treatment-*cum*-Research Centre, Jaipur. Yoga Sadhanashram, Ahmedabad, is doing research on dyspepsia and hyperacidity.

Nature Cure

Two institutions—one at Hyderabad and the other at Ahmedabad—are conducting four-year training courses in nature cure with financial assistance from the Central Government. Assistance is also being given to nature cure institutions at Bhimavaram, Calcutta and Jaipur as well as private voluntary organisations.

CONTROL AND MANUFACTURE OF DRUGS

The Drugs and Cosmetics Act, which covers the entire country, empowers the Union Government to check the quality of imported drugs, co-ordinate the activities of the States, lay down regulatory measures and standards of drugs and grant approval to new drugs proposed to be imported or manufactured. The State Governments are responsible for controlling the quality of drugs which are manufactured, sold and distributed.

The Central Drugs Laboratory, Calcutta, functions as the testing laboratory for imported drugs as well as for those manufactured indigenously. The Central Indian Pharmacopoeia Laboratory, Ghaziabad, tests samples of non-biological drugs and condoms and also lays down the testing methods for the standards of drugs given in the Indian Pharmacopoeia.

Drugs Price Control

The prices of drugs are regulated under the provisions of the Drugs (Prices Control) Order, 1970. The Order, besides freezing the selling prices of 17 essential bulk drugs at the level prevailing in May 1970, has prescribed a revised formula for calculating the retail prices of drugs and fixed the commission payable to dealers (wholesalers and retailers). Prior approval of the Government has been made necessary before revision of prices can be effected.

Vaccine Manufacture

The BCG Vaccine Laboratory at Guindy, Tamil Nadu, rated as the largest vaccine-producing centre in the world, arranges free supply of tuberculin and BCG vaccine to all the States.

The Central Research Institute, Kasauli, supplies vaccine for TAB, cholera, rabies, influenza, antivenom sera and tetanus toxoid. During the Fourth Plan, a separate Research and Training Wing will be established at Chandigarh, while the Centre at Kasauli will mainly produce biologicals.

The Haffkine Institute at Bombay manufactures vaccines, antitoxins and other biologicals.

Drugs and Magic Remedies (Objectionable Advertisements) Act

The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1955, prohibits the publication of objectionable advertisements relating to sexual stimulants, alleged magic cures for venereal diseases and diseases peculiar to women. The Act, which was amended in 1963, also controls the import and export of objectionable advertisements in liaison with the customs and postal authorities who can intercept articles suspected to contain objectionable advertisements.

Medical Depots and Factories

The Medical Stores Organisation, with six depots at Bombay, Calcutta, Gauhati, Hyderabad, Karnal and Madras, ensures supply of medical stores of proper quality and approved pattern to Government and certain non-Government institutions.

At the factories of the Organisation, a large number of drugs and dressings are manufactured to meet the requirements of both civil and military medical store depots. The factories at Bombay and Madras have started manufacturing contraceptive foam tablets and cream.

HEALTH EDUCATION

To co-ordinate and promote health education in the country through various national and State health programmes, a Central Health Education Bureau was set up in 1956. The Bureau organises short as well as long-term in-service training programmes for various categories of health and family planning personnel. Fifteen States and two Union Territories have also set up health education bureaux.

MEDICAL EDUCATION, TRAINING AND RESEARCH

Rapid strides have been made in the field of medical education. The number of medical colleges which was 30 in 1956-57 has increased to 97 (excluding the recently started private capitation fee medical colleges in Bihar). Fifteen dental colleges and 11 other institutions, which train personnel in the modern system of medicine, are also functioning. Establishment of new medical colleges and expansion of the existing ones have raised the admission capacity of these institutions from 2,500 in 1950-51 to over 12,000 in 1971. Ten new medical colleges are proposed to be opened in the Fourth Plan to raise the annual admission capacity to about 13,000 by the end of the Plan. The doctor-population ratio, which was 1:5,150 in 1968, is expected to improve to 1:4,300 by 1974.

Specialised Training

Facilities for the training of nurses exist in practically all major hospitals and in the Colleges of Nursing at Ahmedabad, Bombay, Chandigarh, Hyderabad, Indore, New Delhi, Poona, Madras, Trivandrum and Vellore. State Governments and non-official organisations such as the Andhra Mahila Sabha, Red Cross Society and Rama Krishna Mission also organise auxiliary nurse-midwife courses with assistance from the Centre.

There are 535 nursing and health schools and colleges for training of nurses, auxiliary nurses and mid-wives and health visitors. In 1970, the number of students in these institutions was 20,443, 10,906 and 1,299 respectively. Besides, two universities provide Master of Nursing degrees.

The National Institute of Communicable Diseases, Delhi, which was set up in 1963, conducts training courses in communicable diseases and its allied disciplines. The All India Institute of Hygiene and Public Health, Calcutta, imparts training in public health and its allied disciplines at post-graduate levels.

Research

The Indian Council of Medical Research has been promoting and co-ordinating medical research in India since 1912. It maintains, besides a number of semi-permanent units, seven permanent research institutes/centres, namely, the National Institute of Nutrition, Hyderabad, Virus Research Centre, Poona, T B Chemotherapy Centre, Madras, Cholera Research Centre, Calcutta, Indian Registry of Pathology, New Delhi, National Institute of Occupational Health, Ahmedabad and the Institute for Research in Reproduction, Bombay.

The research activities of the Council cover a wide spectrum. (For details, see Chapter "Scientific Research")

NUTRITION AND PREVENTION OF FOOD ADULTERATION

Surveys conducted in India have revealed quantitative as well as qualitative deficiency in the diet of the people. The average Indian diet lacks essential food elements like proteins, fats, minerals and vitamins due to deficiency of protective foods like vegetables, fruits, milk and eggs.

The general raising of dietary standards is largely an economic problem and is linked up with the development of the economy. Several steps have been taken to meet the nutritional deficiency of certain vulnerable sections of the population such as expectant and nursing mothers, children and industrial workers. Important among these are the School Meal Programme for primary school children and supply of toned milk and fortified bread to pre-school children in city slums and tribal areas in different States. Production and consumption of nutritious foods by the rural community is also encouraged. Other measures include supply of concentrated doses of Vitamin A to children to control blindness among them and supply of tablets containing ferrous sulphate and folic acid to expectant mothers and pre-school children.

To propagate nutrition education among the people, 10 short films in 13 regional languages have been produced so far. Exhibitions and demonstrations are also held to make the people conscious of nutrition education. In 15 States and two Union Territories, Nutrition Divisions have been established in the State Health Directorates.

The Nutrition Advisory Committee of the Indian Council of Medical Research sponsors schemes for nutrition research, besides advising the Government of India on nutrition matters.

Prevention of Food Adulteration

The Prevention of Food Adulteration Act, 1954, is in force throughout the country. The food laws are implemented by local bodies except in Maharashtra where they are enforced by the Food and Drugs Administration. These provide for deterrent punishment to offenders and prohibit the manufacture, import or sale of adulterated food articles. An amending Act which came into operation from 1 March 1965 provides for enhanced punishment for adulteration and appointment of food inspectors by the Government. The Central Committee for Food Standards advises the Central and State Governments on the implementation of the Act. The Central Food Laboratory, Calcutta, carries out investigations to standardise methods of detection. Another Food Research and Standardisation Laboratory is being established at Ghaziabad.

WATER SUPPLY AND SANITATION

The National Water Supply and Sanitation Programme was launched in 1954 to assist the States in Urban and Rural Water Supply and Sanitation Schemes. By March 1971, 1,281 towns had been provided with water supply benefiting a population of six crores. About 190 towns with a population of 3·2 crores had been covered by sewerage system. Of the 5·6 lakh villages, about 20,000 had been provided with pipe water supply up to March 1971. In the Fourth Plan, Rs 410·53 crores have been allocated for this programme.

A number of institutions are imparting training to in-service public health engineering personnel for the effective implementation of the programme. They are the Victoria Jubilee Technical Institute, Bombay, All-India Institute of Hygiene and Public Health, Calcutta, Engineering College, Guindy and Engineering College, Roorkee. A Central Public Health Engineering Organisation has been set up for helping the State Governments in the preparation and execution of their schemes and for giving technical advice and guidance. Similar organisations have also been established in most of the States.

FAMILY PLANNING

Family Planning as an official programme was adopted in 1952. In the first two Five Year Plans (1951-61), the stress was mainly on research in the field of motivation, communication, demography, physiology of reproduction and on the extension of Central and State organisations in providing clinical services. There was, therefore, not much progress in the adoption of family planning. The programme, which is totally voluntary, was reorganised in the Third Plan after the publication of the 1961 census results which showed a higher growth rate than was anticipated. A full-fledged Department of Family Planning was created in 1966 in the Ministry of Health, Family Planning and Urban Development. In 1966-67, the programme was made time-bound and target-oriented. In the Fourth Plan, the programme is being treated on the "highest priority" basis with an outlay of Rs 315 crores.

AIMS AND TARGETS

The programme aims at reducing the annual birth rate from about 39 per thousand at the start of the Fourth Plan to 25 within the next decade or so. The operational goals are adoption of family planning by the people as a way of life through group acceptance of a small family norm, personal knowledge of family planning methods and ready availability of supplies and services. For its success, the programme should cover about 10 crore couples in the reproductive age-group to motivate them to adopt family planning. So far, 1·2 crore couples in the reproductive age-group have been protected.

IMPLEMENTATION MACHINERY

The programme is implemented through the State Governments as a Centrally-sponsored scheme with full financial assistance. The organisational set-up at the Centre and the State levels down to the village communities has been evolved, and is being increasingly extended as a part of the normal health services.

The Central Family Planning Council advises on family planning at the national level. A number of central committees, like the Research Co-ordination Committee, have been set up to study the progress of research programmes. Committees have also been formed for advising on the mass media programmes.

Voluntary organisations and private medical practitioners are also fully associated and involved so as to make the maximum use of available resources for optimum results Nearly 300 voluntary organisations are participating in the family planning programme. At present, 1,913 urban centres and 5,179 rural centres are functioning in the country along with 31,476 sub-centres.

IUCD AND STERILIZATIONS

IUCD and sterilization services are offered both through mobile and static units. During 1971-72, 4.7 lakh insertions were carried out and 21.59 lakh persons were sterilized, the highest in any year since the inception of the family planning programme.

NIRODH

Nirodh (condom) distribution is organised through three schemes namely, Free Supply Scheme, Depot Holder Scheme and Commercial Distribution Scheme. Free distribution is made through Family Welfare Planning Centres/Sub-centres, voluntary organisations and field workers. Under the Depot Holder Scheme, Nirodh is sold at post offices in remote/rural areas at subsidised rates. Under the Commercial Distribution Scheme, six of the country's largest and most experienced private consumer goods marketing organisations are involved in promoting and marketing condoms, through their regular net-work of salesmen, stockists, wholesalers and retailers. The sales of Nirodh increased to 6.6 crore pieces in 1971-72, 26 per cent more than in the previous year.

ORAL CONTRACEPTION

The oral pill was introduced as a pilot project in the family planning programme in August 1967. Three hundred nineteen Oral Contraception Projects have been commissioned so far. A committee was set up in 1971 to decide about the use and effectiveness of the pill in the Indian environment. Its recommendations have yet to be finalised.

POST-PARTUM PROGRAMME

To propagate the message of family planning among women during their lying-in periods in hospitals, a Post-Partum Programme was initiated in 1969 in 59 selected hospitals for their education. During 1971-72, 63 more hospitals have been covered under this programme.

TRAINING

Training is an integral part of the programme. Forty-four Regional Family Planning Training Centres, 16 Central Field Units and five Central Training Institutes impart in-service training to personnel in family planning programme. Orientation training courses are conducted for medical practitioners, homoeopaths and practitioners of indigenous systems of medicine. Basic training courses in family planning are also conducted for undergraduate medical students, auxiliary nurses, midwives, lady health visitors and general nurses.

MOTIVATION AND EDUCATION

A broad-based programme of education and motivation is in operation all over the country through the use of mass media and other channels of communication. The programme lays emphasis on mass education as well as group and interpersonal communication.

Assistance of voluntary organisations, panchayats and local institutions is also secured for promoting the programme. For securing more active involvement of the opinion leaders from all walks of life, a "direct mail communication project" was launched in 1969. Starting with a mailing list of 5 lakh opinion leaders, the mailing list is proposed to be built up to 25 lakhs by 1973-74.

To orientate the younger age-groups in educational institutions, a programme of "population education" is also being planned in cooperation with the Ministry of Education. Proposals for involvement of non-student youth and illiterate adults are also being drawn up.

RESEARCH AND EVALUATION

To obtain maximum results within the financial and physical resources allocated to the programme, research is being conducted and encouraged in the field of demography, communication action, reproductive biology and fertility control. In the field of demography and communication action, eight Demographic Research Centres and four Communication Action Research Centres are functioning, besides the National Institute of Family Planning, New Delhi. The International Institute for Population Studies, Bombay, apart from conducting investigations, also imparts training in demography to both Indian and foreign students. Various universities and institutions such as the Population Council of India and the Indian Institute of Management, Calcutta, are conducting surveys/studies for assessing the characteristics of acceptors and fertility of the population.

Research in the fields of reproductive biology and fertility control is carried out by the Indian Council of Medical Research, New Delhi, the Central Drug Research Institute, Lucknow, and the Central Council of Research in Indian Medicine and Homoeopathy, New Delhi. A number of post-graduate institutes and universities also conduct research in various aspects of productive and fertility behaviour and preparation of new contraceptives.

Research on various aspects of anti-fertility is being conducted by the Central Drug Research Institute, Lucknow. Concurrent evaluation is done by the Evaluation and Intelligence Unit with the help of periodical statistics obtained from the States. At State level, evaluation is carried out by the Demographic and Evaluation Cell set up in the State Family Planning Bureau.

As a result of family planning work done up to March 1972, 9.3 per cent of the target couples (with wives in the age-group 15-44 years) have been currently protected by sterilization, 1.6 per cent by IUCD and 2.3 per cent by conventional contraceptives. The net result of these efforts has been that an estimated one crore births had been averted by 31 March 1972.

9 SOCIAL WELFARE

The Directive Principles of State Policy as embodied in the Indian Constitution lay down that "the State shall strive to promote the welfare of the people by securing and promoting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life". These principles particularly emphasize that "the State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the scheduled castes and scheduled tribes, and shall protect them from social injustice and all forms of exploitation".

The social welfare services are intended to cater to the special needs of persons and groups who, by reason of some handicap, social, economic, physical or mental, are unable to avail themselves of the amenities and services provided by the community. These weaker sections include women, children, handicapped, aged and infirm, scheduled castes and scheduled tribes, etc.

EXPENDITURE ON WELFARE PROGRAMMES

The expenditure on social welfare programmes (excluding the expenditure on the welfare of backward classes which has been given separately in this chapter) under the Central, State and Union Territory Plans since the beginning of the First Plan is given in Table 9.1.

TABLE 9.1
EXPENDITURE ON SOCIAL WELFARE

(Rs crores)

	First Plan	Second Plan	Third Plan	1966-69	1969-71 (Actual)	1971-72 (Anticipated)
Centre	1.60	8.49	12.84	7.76	8.17	4.64
States	—	4.95	5.63	3.20	1.70	1.85
Union Territories	—	N.A.*	0.93	0.60	0.25	0.25
Total	1.60	13.44	19.40	11.56	10.12	6.74

*Separately not available; included in Centre's expenditure.

FOURTH PLAN OUTLAY

The Fourth Plan outlay on social welfare programmes under major heads for the Centre and Centrally sponsored programmes, for States and Union Territories is given in Table 9.2.

SOCIAL WELFARE ORGANISATIONS

Department of Social Welfare

This Department, created in 1964 (then known as Department of Social Security) under the Central Government, looks after general social welfare including nutrition programmes for children and expectant and nursing mothers and welfare of backward classes. It also plans social welfare programmes as an integral part of the national development plans and co-ordinates welfare services maintained by the Government of India, the State Governments and the national voluntary agencies.

TABLE 9.2 FOURTH PLAN OUTLAY UNDER MAJOR HEADS

(*Rs crores*)

Name of the scheme	Outlay
Centre	
Family and child welfare	7.50
Nutritional feeding in Balwadis	5.00
Special nutrition programmes for children	54.00*
Assistance to voluntary organisations for the welfare of:	
(i) Destitute children	2.00
(ii) Destitute women	1.00
Grants-in-aid to voluntary organisations by Central Social Welfare Board	6.50
Welfare of the handicapped	2.50
Research, training and administration	1.05
Central Bureau of Correctional Services	0.20
Strengthening of all-India voluntary organisations	0.33
Educational work for prohibition	0.10
Rehabilitation of rehabilitable persons from permanent liability homes and infirmaries	1.25
Regional Pre-vocational Training Centres	0.07
Centrally-sponsored	
Pre-vocational Training Scheme	1.93
TOTAL (Centre and Centrally-sponsored)	83.43
States	10.57
Union Territories	1.41
GRAND TOTAL	95.41

* Includes Rs 4 crores under non-Plan expenditure for 1970-71, when the scheme was started.

Central Social Welfare Board

The Central Social Welfare Board was set up in August 1953. It has been converted into a company under Section 25 of the Companies Act, 1956 with effect from 1 April 1969. Its functions include survey of the needs and requirements of social welfare organisations, evaluation of their programmes and projects, co-ordination of the assistance given by various Central Ministries and State departments, promoting the development of voluntary organisations in the areas where no such organisations exist and rendering financial assistance to deserving agencies. All welfare schemes sponsored by the Board are implemented through voluntary organisations.

State Social Welfare Advisory Boards

Social welfare advisory boards have been constituted in all the States and Union Territories (except Laccadive, Minicoy and Amindivi Islands) to act as the counterparts of the Central Social Welfare Board at the State level, to serve as the media for exchange of information between the field and the centre and *vice versa* and to co-ordinate the welfare and developmental activities of the State Governments and the Central Board to avoid any duplication. A major portion of the financial assistance of the Central Board is extended to voluntary institutions through the State boards.

Social Welfare and Rehabilitation Directorate

The Directorate runs training-*cum*-production centres to provide training in handicrafts, tailoring, embroidery, knitting, weaving, etc., and provides work to poor women (displaced as well as non-displaced) near their homes. By the end of March 1972, 5,227 women had taken advantage of these training facilities.

Voluntary Organisations

Even before Independence, voluntary agencies in India had been working specially in the field of women welfare, child welfare and welfare of the handicapped. Their activities were, however, limited on account of their meagre resources. After Independence it was realised that if the voluntary agencies were to play an active role in the promotion of welfare services, the Government must come to their aid. In the First Plan, therefore, a provision of Rs 4 crores was made for extending assistance to voluntary agencies so that they could maintain and develop their programmes and dovetail them into the general pattern as laid down in the Plan. The setting up of the Central Social Welfare Board further strengthened the efforts of these voluntary agencies.

There were 2,186 voluntary agencies receiving aid from the Government during the First Plan period. Their number rose to 6,000 by the end of the Second Plan. During the Third Plan, the Central Social Welfare Board decided not to extend its grant-in-aid to new institutions and preferred to help the existing ones in consolidating and improving their working. There are about 6,000 voluntary agencies receiving financial aid from the Board at present.

Grants-in-aid to Voluntary Agencies

Under the grants-in-aid programme of the Central Social Welfare Board, financial assistance is extended to registered voluntary welfare institutions working for the welfare of women, children, handicapped, aged and infirm and for medical social service. These financial grants are sanctioned on annual basis and also on Plan basis covering a period of five years, the latter being given only to established institutions of not less than five years' standing. Annual grants not exceeding Rs 5,000 are also sanctioned by the State social welfare advisory boards.

The Central Board sanctioned a sum of Rs 13.54 crores to voluntary institutions during 1951–69. It is estimated that every year about 6.5 lakh persons including about 3.2 lakh children derive benefits from the various activities aided by the Board.

For the Fourth Plan, a provision of Rs 6.50 crores has been made of which expenditure during the first three years of the Plan was estimated to be Rs 3.8 crores.

WELFARE PROGRAMMES

The various programmes of social welfare are broadly categorised under six heads, namely, (1) programmes for the welfare of women; (2) programmes for the welfare of children; (3) composite programmes (both for women and children); (4) schemes for the maladjusted groups; (5) programmes for the physically handicapped persons; and (6) programmes for the welfare of backward classes.

WELFARE OF WOMEN

Committee on Status of Women

For a comprehensive examination of all questions relating to the rights and status of women in India resulting from various constitutional, legal and administrative provisions, of development of women's education and of problems of working women, housewives and mothers, a committee was set up on 22 September 1971. The committee is expected to submit its report within two years.

Condensed Course of Education for Adult Women

To provide employment opportunities to the socially handicapped women and also to create a band of trained women workers, such as, teachers, nurses, health visitors, etc., to run the various welfare projects in rural areas, adult women in the age group 18–30, who have had some schooling, are prepared for middle school, matriculation or equivalent examinations within a period of two years. The Central Social Welfare Board extends financial assistance for conducting these courses.

Since the inception of the scheme in 1958, the Board had released a sum of Rs 2.88 crores up to March 1972 to voluntary welfare organisations to organise 1,314 courses. The families of jawans killed or permanently disabled in the recent war with Pakistan are also proposed to be covered by this scheme.

Mahila Mandals

After the closure of the welfare extension projects (original pattern) in 1961, it was decided to make voluntary organisations responsible for the continuance of welfare programmes in rural areas. For this purpose some women's voluntary organisations known as Mahila Mandals were formed. They receive grants from the Central Social Welfare Board to the extent of 75 per cent of the schematic expenditure for the approved activities. During the Third Plan period, 624 Mahila Mandals were sanctioned grants amounting to Rs 2.06 crores for running 1,629 centres. During the period 1966-70, the number of Mahila Mandals aided by the Government came down to 502. During 1971-72, 451 of them were sanctioned grants amounting to Rs 28.69 lakhs for running 1,092 centres.

Working Women's Hostels

Working women's hostels is one of the services sponsored by the Central Social Welfare Board with the aim of preventing young working girls in urban areas from being exposed to undesirable and anti-social elements. The Board sanctions grants to voluntary welfare institutions willing to set up such hostels or provide healthy accommodation at reasonable rates to working women of lower income groups. During 1971-72, 24 hostels for working women received aid from the Board amounting to Rs 52,150.

Border Area Programmes

The need for augmenting the welfare services in the border areas of the country was felt during the Chinese aggression in 1962. Accordingly, welfare centres were organised in the border areas of Arunachal Pradesh, Leh in Jammu and Kashmir, Lahaul and Kinnaur in Himachal Pradesh, Chamoli, Uttar Kashi and Pithoragarh in Uttar Pradesh and Kutch and Banaskantha in Gujarat. These centres provide maternity services, infant care, craft training and social education for women. The expenditure on these projects is shared in the ratio of 2:1 by the Central Social Welfare Board and the respective State Governments. There are at present 19 projects with 71 centres in these areas. A sum of Rs 4.23 lakhs was released to these projects during 1971-72.

PROGRAMMES FOR CHILDREN

Nutrition Programmes

Nutritional deficiency is widespread among the children in this country, especially among those belonging to the lower economic strata. It is a serious hazard to the growth and development of children, particularly infants and pre-school children, and unless tackled in early years it results in almost irreparable damage to their physical, mental and psychological development. To counter this situation, the Government of India introduced the Special Nutrition Programme from 1970-71 to provide supplementary nutrition to the most vulnerable sections of the country's population belonging to the age group 0–3. This scheme was enlarged from July 1971 to cover the entire pre-school children of the age group 0-6 and nursing and expectant mothers living in urban slums and tribal areas.

The programme is operated in urban slum areas of a population concentration of one lakh or more and in tribal areas. It is also being extended to cover, to some extent, the drought and famine affected areas of the country.

The programme has made substantial progress since it was started. Excepting in Meghalaya, Arunachal Pradesh and Mizoram, it is in operation in all the States and the Union Territories. About 17,000 feeding centres have been set up in the tribal areas and about 6,000 feeding centres in the urban slum areas covering over 29 lakh beneficiaries. The provision for 1972-73 for this programme is Rs 20 crores.

In addition to the Special Nutrition Programme, the Department of Social Welfare is implementing a nutrition programme for the children in the age group 3–5 years through the agencies of Balwadis and day-care centres run by the Central Social Welfare Board, Indian Council for Child Welfare, Harijan Sevak Sangh and Adimjati Sevak Sangh. An outlay of Rs 5 crores has been made for this programme in the Fourth Plan. The programme at present covers 2,12,573 children and 5,793 Balwadis.

Holiday Camps for Children

Under this scheme, started in 1958, financial assistance is extended by the Central Social Welfare Board to voluntary organisations for organising camps for children of low income group families. A sum of Rs 5.13 lakhs was released to the State boards for onward release to the institutions for conducting 189 holiday camps during 1971-72.

Integrated Pre-School Projects (Urban Neighbourhood)

This programme aims at providing basic amenities necessary for the physical growth and mental development of children, particularly those living in slums and low income group localities.

The programme was started in 1964 with five projects. At present 12 projects are functioning in Assam, Gujarat, Madhya Pradesh, Maharashtra, Uttar Pradesh, West Bengal, Kerala, Haryana, Chandigarh and Delhi. During 1971-72, a sum of Rs 1.34 lakhs was released for these projects.

Foster Care Homes

This programme aims at providing foster care homes for children affected owing to desertion, divorce, long illness of either of the parents, imprisonment or death of parents. Three such homes, one in Madras and two in Bombay, are at present functioning under the supervision of voluntary institutions. During 1971-72, a sum of Rs 74,800 was released to the State boards for onward release to the institutions.

Pre-vocational Training to Children

Under this scheme, children in the age group 11-14 years, who give up studies after completion of primary education for economic reasons, are admitted in the pre-vocational training centres. The training covers general education up to the middle school level and vocational orientation in six trades, namely, fitting, sheet metal work, gas welding, blacksmithy, moulding and carpentry. It is a three-year course to help young people to enter the employment market as semi-skilled workers. This programme is promoted as a Centrally sponsored scheme with the help of the State Governments and the entire expenditure is borne by the Government of India. Assistance from UNICEF is received in the form of tools, equipment and other educational aids for training and UNESCO and ILO offer technical advice.

There are at present 79 pre-vocational training centres in the country. Nearly 5,000 children took advantage of these centres during 1971-72. Five regional centres at Narendrapur (West Bengal), Ludhiana

(Punjab), Madras (Tamil Nadu), Secunderabad (Andhra Pradesh) and Karad (Maharashtra) provide in-service training to the staff of the pre-vocational training centres. A sum of Rs 35.14 lakhs was spent on the programme during 1971-72.

Balsevika Training Programme

The Indian Council for Child Welfare conducts training courses for Balsevikas through its State branches or other voluntary organisations. At present there are eleven training centres. During 1971-72, 450 women were trained at these centres. The Department of Social Welfare sanctioned a grant of Rs 5 lakhs during the year to meet 90 per cent of the expenses on these centres.

COMPOSITE PROGRAMMES

Family and Child Welfare Projects

The programme of Family and Child Welfare Projects is the largest single national programme directed towards the welfare of women and children specially in rural areas. The projects are financed wholly by the Government of India and the Central Social Welfare Board has been entrusted with the responsibility of their supervision and control.

Each project consists of one main centre and five sub-centres. The main centre consists of Grah Kalyan Kendra and Balvikas Kendra catering to the needs of women and pre-school children respectively. The Grah Kalyan Kendra offers education in personal hygiene, health and sanitation, home-craft, nutrition, family planning, etc. Each project has a schematic budget of Rs 60,000 for recurring expenses and Rs 55,500 for non-recurring expenses in five years. By the end of March 1972, 247 such projects were functioning in the various States and Union Territories. A sum of Rs 7.50 crores has been provided in the Fourth Plan for this programme out of which Rs 3.73 crores were expected to be spent during the first three years of the Plan.

The earlier projects known as the Welfare Extension Projects (Rural Pattern) and the Welfare Extension Projects (Co-ordinated Pattern) are being converted into Family and Child Welfare Projects. Out of 264 projects of the co-ordinated pattern in operation at the end of the Third Plan, 209 projects had been converted into Family and Child Welfare Projects by the end of March 1972. The remaining projects are also expected to be converted into Family and Child Welfare Projects by the end of Fourth Plan.

Training of Workers

The Central Social Welfare Board has organised six training centres at Baroda, Sriniketan, Gandhigram Allahabad, Jamia (Delhi) and Indore for imparting training to the workers required for the Family and Child Welfare Projects and other programmes of the Board. A sum of Rs 8.59 lakhs was released for this purpose during 1971-72 and 1,960 workers had been trained by the end of March 1972.

Welfare Extension Projects (Urban)

The increasing pace of industrial development has brought about the rapid growth of slums in new industrial areas. To meet the needs of these areas, a programme of Welfare Extension Projects (Urban) was launched in 1958. These projects provide a closely knit programme of Balwadis, craft and social education for adult women, educational programmes for youth and maternity and child welfare services. For 33 such projects run by voluntary organisations in different States, a sum of Rs 2.18 lakhs was released during 1971-72.

Socio-economic Programme

This programme of the Central Social Welfare Board, started during the Second Plan, aims at providing needy women, destitutes and physically handicapped persons with work and wage opportunities to supplement the meagre income of their families. Under this programme, the Board has sponsored a number of production units with the support and technical assistance of the Central Small Industries Organisation and regional offices of the All India Handicrafts Board and the All India Handloom Board. From the inception of the programme in 1958 up to the end of March 1972, a sum of Rs 52.89 lakhs had been sanctioned for 130 training-*cum*-production/procurement units and Rs 47.03 lakhs released to the institutions running these units. The employment potential of these units is expected to be 4,000 needy women and handicapped persons.

MALADJUSTED GROUPS

Social Defence Programmes

Social defence measures are organised mainly within the framework of specific legislations. Such measures include care and protection of neglected and delinquent children under the provisions of the Children's Acts, probation services, suppression of immoral traffic and programmes of social and moral hygiene, after-care and prevention of beggary.

Juvenile Delinquents

Legislation on the lines of the Children's Act, 1960 (applicable to the Union Territories) has been enacted in all the States and Union Territories except Nagaland.

There are at present 91 juvenile courts, 99 special schools and 146 fit persons institutions. In addition, there are 55 remand observation homes offering institutional services to children and nine Borstal schools in the country.

Immoral Traffic in Women and Girls

The Indian Penal Code provides for imprisonment up to 10 years and fines for the procurement, buying and selling of girls under 18 years for prostitution. Similar penalties have also been prescribed for importing into India girls below 21 years for this purpose. In addition, there is a special Act known as the Suppression of Immoral Traffic in Women and Girls Act, 1956, which provides for the suppression of immoral traffic in women and girls in terms of the International Convention signed in New York in May 1950. Rules under this Act have been framed by almost all the States and Union Territories. There are at present 33 protective homes and 68 reception centres/district shelters in India.

A scheme for short stay homes for the benefit of women and girls facing moral danger and for their rehabilitation was approved during 1969-70. Two pilot projects, one in West Bengal and the other in Madhya Pradesh, are being run for which a sum of Rs 1.10 lakh has been provided in 1972-73.

Beggary

The Criminal Procedure Code treats vagrants and vagabonds alike and provides penalties to them. Beggars may be prosecuted under the Code just as those committing public nuisance. Beggary within railway premises was prohibited by law in 1941. Special Acts have been passed by most of the States to prohibit begging in public places. In others, the municipal and police Acts provide measures against begging. The immediate objective is to eradicate beggary from big cities, places of pilgrimage, tourist centres, etc.

To deal effectively with persons who kidnap children for the purpose of exploiting them for begging, the Indian Penal Code (Amendment) Act, 1959 was enacted. This Act makes kidnapping or obtaining custody of a minor and maiming of a minor for the purpose of begging specific offences and provides for deterrent punishment which may extend to life imprisonment where children are maimed. Under the social Defence programmes, assistance is provided for setting up beggar homes.

Probation Services

The Probation of Offenders Act, 1958 is a Central legislation which aims at placing youthful and first offenders under probation with or without supervision by orders of the trying courts so that they can make adjustments while staying in the open community.

The year 1971 was observed as "Probation Year" both at the Central and State levels. An important event was the National Correctional Conference on Probation and Allied Measures held in New Delhi in October 1971. On the recommendation of this conference, High Courts of some of the States have instructed the lower courts to pay particular attention to the Probation of Offenders Act.

Welfare Services in Prisons

Under the scheme, welfare officers help prisoners in their rehabilitation and maintain liaison between the prisoners and their families. Another scheme for loan-*cum*-assistance to the States for prison development and reforms is under the Centre's consideration.

Central Bureau of Correctional Services

The Central Bureau of Correctional Services established in August 1961 is the Central agency to co-ordinate the policies and programmes in the field of social defence. This is being achieved by (i) collection of statistics relating to crime and prison, probation and other services on a national basis; (ii) exchange of information and provision of technical knowledge and assistance; (iii) promotion of research and training of staff; (iv) studies, surveys and experiments where necessary; and (v) dissemination of information through publications. The Bureau also gives expert advice to the Central and State Governments on correctional matters. A provision of Rs 20 lakhs has been made in the Fourth Plan for developing the Bureau's services.

WELFARE OF PHYSICALLY HANDICAPPED

There are four major categories of handicapped persons, namely, the blind, the deaf, the orthopaedically handicapped and the mentally retarded. The following programmes are under execution for their education, training and rehabilitation:

Blind

The number of blind persons in India is estimated at 40 to 50 lakhs. There are 140 schools and training centres for the blind in the country.

The National Centre for the Blind, Dehra Dun provides comprehensive and integrated services. The model school for blind children attached to the Centre is a secondary school. Seventy boys and girls continue to receive education in this school. Besides the school, the Centre consists of a training centre for the adult blind, a school for partially sighted children, a workshop for the manufacture of Braille appliances, a sheltered workshop and the central Braille press. The national library for the blind, which also forms part of the Centre, circulates Braille literature in the country. The four teachers' training centres at Delhi, Bombay, Calcutta and Madras impart training to about 40-50 teachers for the blind annually.

A project to impart blind children education in the schools for sighted children with the assistance of specially trained teachers in certain subjects is being planned in Delhi.

Deaf

The Training Centre for the Adult Deaf, Hyderabad, imparts training to the deaf in tailoring, sheet metal work, electrical wiremanship, carpentry, fitting and gas welding.

One hundred and ninety-nine trainees in seven batches have so far completed training in these trades and ninety-eight trainees are at present undergoing training in these crafts. Centres for teachers' training for the deaf are located at Ahmedabad, Delhi, Bombay, Calcutta and Lucknow. A school for partially deaf children in Hyderabad imparts education to children with some functional hearing by utilising auditory training methods.

Orthopaedically Handicapped

The Central Government has decided to set up a National Centre for the Orthopaedically Handicapped in Bon-Hoogly, Calcutta. Regional centres will be set up in Bombay and Delhi. A committee appointed by the Central Government has suggested measures in educational, social, psychological and vocational areas to provide the widest possible range of services needed by orthopaedically handicapped children and adults. They are being worked out.

Mentally Retarded

A Model School for Mentally Deficient Children in Delhi imparts education to mentally deficient children of 6 to 15 years of age.

Scholarships and National Awards

The Department of Social Welfare awards scholarships to blind, deaf and orthopaedically handicapped students for general education and for technical and professional training. The number of such scholarships rose to 1,449 during 1971-72 compared to 891 during 1970-71.

National awards to three most efficient physically handicapped employees and three outstanding employers of the physically handicapped are also given every year.

RESEARCH AND EVALUATION

The Department of Social Welfare has set up a Standing Advisory Committee on Social Welfare Research. It has also set up a Statistical and Research Cell for collecting information and evaluating the social welfare programmes.

The Central Institute of Research and Training in Public Co-operation was sponsored by the Government in 1966 to promote voluntary action, step up people's participation in the Plan programmes, study activities of voluntary agencies, conduct research in the problems of voluntary organisations, train workers engaged in voluntary action and evaluate various programmes. The Institute also organises training and orientation courses, seminars, workshops and conferences.

SOCIAL LEGISLATION

The Child Marriage Restraint Act of 1929 provides for punishments in case of marriage to which a male under 18 years of age or a female under 15 years of age is a party.

The Hindu Marriage Act, 1955 lays down that for a fresh marriage neither party should have a spouse living.

Among other important social legislations covering children and women are: the Apprentices Act of 1950; the Reformatory Schools Act of 1897; the Borstal Schools Act; Juvenile Smoking Acts; the Hindu Married Women's Right to Separate Residence and Maintenance Act of 1946; the Hindu Marriage Disabilities Removal Act of 1946; the Hindu Marriage Validating Act, 1949; the Suppression of Immoral Traffic in Women and Girls Act, 1956; the Probation of Offenders Act, 1958 and the Children's Act, 1960 (meant for Union Territories) and similar Acts passed by the various States.

SCHEDULED AND BACKWARD CLASSES

Over one-fifth of India's population comprises the scheduled castes, scheduled tribes and other backward classes. The scheduled castes on account of certain traditional inabilities and the scheduled tribes mainly because of their geographical isolation have not been able to derive in full measure the benefits of planned economic development of the country.

While the Constitution has prescribed certain protective measures and safe-guards (listed below) for these classes, the successive five year Plans have regarded their progress as a major objective of national policy. Between 1950 and 1969, a sum of Rs 275 crores was spent under the Plans. Besides, the States made available Rs 100 crores from their non-plan budgets.

CONSTITUTIONAL SAFEGUARDS

The Constitution prescribes protection and safeguards for the scheduled castes and tribes and other backward classes either specially or by way of general rights of citizens with the object of promoting their educational and economic interests and of removing certain social disabilities the scheduled castes were subjected to. These are:

(i) the abolition of 'untouchability' and the forbidding of its practice in any form (art. 17);
(ii) the promotion of their educational and economic interests and their protection from social injustice and all forms of exploitation (art. 46);
(iii) the throwing open of Hindu religious institutions of a public character to all classes and sections of Hindus (art. 25);
(iv) the removal of any disability, liability, restriction or condition with regard to access to shops, public restaurants, hotels and places of public entertainment, the use of wells, tanks, bathing ghats, roads and places of public resort maintained wholly or partly out of State funds or dedicated to the use of the general public (art. 15);
(v) the curtailment, in the interests of any scheduled tribe, of the general rights of all citizens to move freely, settle in, acquire property or practise any trade or business [art. 19(5)];
(vi) the forbidding of any denial of admission to educational institutions maintained by the State or receiving aid out of State funds (art. 29);
(vii) the obligation of the State to consider their claims in the making of appointments to public services and make reservation for them in case of inadequate representation (arts. 16 and 335);
(viii) special representation in Parliament and the State legislatures till 25 January 1980 (arts. 330, 332 and 334);
(ix) the setting up of advisory councils and separate departments in the States and the appointment of a special officer at the Centre to promote their welfare and safeguard their interests (arts. 164 and 338 and Fifth Schedule); and
(x) special provision for the administration and control of scheduled and tribal areas (art. 244 and Fifth and Sixth Schedules).

Under articles 341 and 342 of the Constitution, the President has specified the scheduled castes and scheduled tribes. The Government of India have not specified backward classes other than the scheduled castes and scheduled tribes and have left this matter to the discretion of the respective State Governments, but they have been advised to adopt economic tests rather than caste criterion for this purpose.

LEGISLATION AGAINST UNTOUCHABILITY

The Untouchability (Offences) Act, 1955 provides penalties for preventing a person, on the ground of untouchability, from entering a place of public worship, offering prayers therein or taking water from a sacred tank, well or spring. Penalties are also provided for enforcing all kinds of social disabilities, such as denying access to any shop, restaurant, public hospital or educational institution, hotel or any place of public entertainment; the use of any road, river, well, tank, water tap, bathing ghat, cremation ground, sanitary convenience, dharamshala, sarai or musafirkhana or utensils kept in such institutions and hotels and restaurants. The Act prescribes penalties for enforcing occupational, professional or trade disabilities, or disabilities in the matter of enjoyment of any benefit under a charitable trust, in the construction or occupation of any residential premises in any locality or the observance of any social or religious usage or ceremony.

The Act similarly lays down penalties for refusing to sell goods or render services to a Harijan because he is a Harijan; for molesting, injuring or annoying a person, or organising a boycott of, or taking any part in the ex-communication of a person who has exercised the rights accruing to him as a result of the abolition of untouchability.

Higher penalties have been prescribed for subsequent offences. For purposes of awarding punishments, incitement or abetment of the offence has been treated in the same manner as the commission of the offence. The onus of proving innocence has been thrown on the accused. The offences under this Act are cognisable.

The Act is administered by the State Governments but its implementation is reviewed from time to time by the Commissioner for Scheduled Castes and Scheduled Tribes.

Since 1954 the Government of India have been giving financial support to the movement to eradicate untouchability. Both official and non-official agencies are being utilised for this purpose. The State Governments have instructed their officials who deal with the public to stress the need for, and the urgency of, doing away with this evil. Efforts are made to enlist people's co-operation in the eradication of untouchability. Most of the States have appointed small committees to enforce, where necessary, the provisions of the Untouchability (Offences) Act, 1955. Publicity media, such as books, pamphlets, handbills and audio-visual aids have also been pressed into service. In order to make the penal provisions of the Act more stringent, an amendment Bill was introduced in the Parliament during 1972.

POPULATION: STATE-WISE BREAK-UP

According to the 1971 census the population of the scheduled castes and scheduled tribes was 7,99,95,896 and 3,80,15,162 respectively.

The State-wise distribution of the scheduled castes and tribes is shown in Table 9.3.

REPRESENTATION IN LEGISLATURES

Under articles 330 and 332 of the Constitution, seats are reserved for the scheduled castes and scheduled tribes in the Lok Sabha and State Vidhan Sabhas in proportion to their population. This concession was to end on 25 January 1970 but Parliament, through the twenty-third amendment to the Constitution, has

TABLE 9.3
SCHEDULED CASTES AND SCHEDULED TRIBES (1971 CENSUS)

		Scheduled castes	Scheduled tribes
	INDIA	7,99,95,896	3,80,15,162
States			
1.	Andhra Pradesh	57,74,548	16,57,657
2.	Assam	9,12,557	16,06,648
3.	Bihar	79,50,652	49,32,767
4.	Gujarat	18,25,432	37,34,422
5.	Haryana	18,95,933	..
6.	Himachal Pradesh	7,69,572	1,41,610
7.	Jammu and Kashmir	3,81,277	..
8.	Kerala	17,72,168	2,69,356
9.	Madhya Pradesh	54,53,690	83,87,403
10.	Maharashtra	30,25,761	29,54,249
11.	Manipur	16,376	3,34,466
12.	Meghalaya	3,887	8,14,230
13.	Mysore	38,50,034	2,31,268
14.	Nagaland	..	4,57,602
15.	Orissa	33,10,854	50,71,937
16.	Punjab	33,48,217	..
17.	Rajasthan	40,75,580	31,25,506
18.	Tamil Nadu	73,15,595	3,11,515
19.	Tripura	1,92,860	4,50,544
20.	Uttar Pradesh	1,85,48,916	1,98,565
21.	West Bengal	88,16,028	25,32,969
Union Territories			
1.	Andaman & Nicobar Islands	..	18,102
2.	Arunachal Pradesh	339	3,69,408
3.	Chandigarh	29,073	..
4.	Dadra & Nagar Haveli	1,332	64,445
5.	Delhi	6,35,698	..
6.	Goa, Daman & Diu	16,514	7,654
7.	Laccadive, Minicoy & Amindivi Islands	..	29,540
8.	Mizoram	82	3,13,299
9.	Pondicherry	72,921	..

extended the period of reservation till 25 January 1980. Table 9.4 gives details of their representation in the Houses mentioned above. There is no reservation of seats in the Rajya Sabha and State Vidhan Parishads.

Following the introduction of Panchayati Raj, suitable safeguards have been provided for proper representation of the members of the scheduled castes and scheduled tribes by reserving seats for them in the Gram Panchayats and other local bodies.

RESERVATION IN THE SERVICES

The manner in which the State carries out its obligation to reserve posts for the scheduled castes and tribes in the public services in case of inadequate representation and to consider their claims consistent with the maintenance of efficiency of administration has been left outside the purview of obligatory consultation with the Public Service Commission [art. 320 (4)].

For the scheduled castes, reservation is 15 per cent of the vacancies for which recruitment is made by open competition on an all-India basis and 16-2/3 per cent of the vacancies to which recruitment is made otherwise. For the scheduled tribes, the reservation is 7½ per cent in both cases. Reservations in direct recruitment to class III and IV posts, which normally attract candidates from a locality or

TABLE 9.4
Reservation of Seats in Legislatures

	Lok Sabha			State Vidhan Sabhas		
	Total	Seats reserved for scheduled castes	Seats reserved for scheduled tribes	Total	Seats reserved for scheduled castes	Seats reserved for scheduled tribes
States						
1. Andhra Pradesh	41	6	2	287	40	11
2. Assam	14	1	2	114	8	14*
3. Bihar	53	7	5	318	45	29
4. Gujarat	24	2	3	168	11	22
5. Haryana	9	2	—	81	15	—
6. Himachal Pradesh	4	1	—	68	16	3
7. Jammu & Kashmir	6	—	—	75**	6	—
8. Kerala	19	2	—	133	11	2
9. Madhya Pradesh	37	5	8	296	39	61
10. Maharashtra	45	3	3	270	15	16
11. Manipur	2	—	1	60	1	19
12. Meghalaya	2	—	2	60	—	50
13. Mysore	27	4	—	216	29	2
14. Nagaland	1	—	—	52	—	—
15. Orissa	20	3	5	140	22	34
16. Punjab	13	3	—	104	23	—
17. Rajasthan	23	4	3	184	31	21
18. Tamil Nadu	39	7	—	234	42	2
19. Tripura	2	—	1	60	6	19
20. Uttar Pradesh	85	18	—	425	89	—
21. West Bengal	40	8	2	280	55	16
Union Territories						
1. Andaman & Nicobar Islands	1	—	—	—	—	—
2. Arunachal Pradesh	1	—	—	—	—	—
3. Chandigarh	1	—	—	—	—	—
4. Dadra & Nagar Haveli	1	—	1	—	—	—
5. Delhi	7	1	—	56†	7	—
6. Goa, Daman & Diu	2	—	—	30	—	—
7. Laccadive, Minicoy & Amindivi Islands	1	—	1	—	—	—
8. Mizoram	1	—	1	30	—	—
9. Pondicherry	1	—	—	30	5	—
	522	77	40	3,771	516	321

* 4 Seats reserved for two autonomous districts *i.e.* North Cachar and Mikir Hills districts

** Excluding 25 seats in the territory held by Pakistan—section 48 of the Constitution of Jammu & Kashmir

† Metropolitan Council

region, are fixed in proportion to the population of the scheduled castes and scheduled tribes in the respective States and Union Territories.

Reservation is also made at 15 per cent of the vacancies for the scheduled castes and 7½ per cent of the vacancies for the scheduled tribes in promotions on the results of the competitive examinations limited to departmental candidates in classes II, III and IV and in promotions by selection in classes III and IV in grades or services to which direct recruitment, if any, does not exceed 50 per cent.

In the case of promotion by selection from class III to class II, within class II, and from class II to the lowest rung or category in class I, such employees, unless they are found unfit, are given one higher grading in categorisation on merit; the concession is confined to 25 per cent of the total vacancies in a grade in a year. In promotions by selection within class I to posts carrying an ultimate salary of Rs 2,000 p.m. or less, the scheduled castes/tribes officers who are senior enough in the zone of consideration for promotion and are within the number of vacancies for which the select list has to be drawn, are included in that list provided they are not considered unfit for promotion.

To facilitate their adequate representation, concessions, such as, (i) relaxation in age limit, (ii) relaxation in the standard of suitability and (iii) selection provided they are not found unfit for the post/posts, have been provided for. If no suitable scheduled caste or scheduled tribe candidates are available for the reserved posts, they are treated as unreserved and an equal number of reservations are carried forward to three recruitment years. In no recruitment year, however, the number of reserved vacancies is to exceed 45 per cent of the total vacancies.

To give proper effect to the reservations decided upon, model rosters of 40 points each have been prescribed for recruitment by open competition and otherwise on an all-India basis. If the vacancies in a service or cadre are too few for the purpose, all corresponding posts are grouped together. Annual statements are required to be submitted by the recruiting authorities for scrutiny by the Government. To bring about a greater awareness for ensuring effective implementation of the special representation orders, liaison officers have been appointed in the different Ministries of the Union Government.

Some of the State Governments have also drawn up rules for the reservation of posts for these classes and steps have been taken to increase their representation in the State services.

The number of officers under the Central Government belonging to the scheduled castes and scheduled tribes in various grades as on 1 January 1970 was: class I—693; class II—1,660; class III—1,60,614 and class IV (excluding sweepers)—2,61,282. The number of officers belonging to the scheduled castes/tribes in all-India services as on 1 January 1970 was: ICS/IAS—270; IP/IPS—150 and IFS—36. A high-powered committee was set up under the chairmanship of the Home Minister in 1968-69 to review the progress of employment of the scheduled castes and scheduled tribes under the Government of India, the Union Territories and the public sector undertakings. The committee has been reconstituted under the chairmanship of the Prime Minister.

Special arrangements have been made for training of class I officers belonging to the scheduled castes and scheduled tribes.

ADMINISTRATION OF TRIBAL AREAS

The tribal areas in the States of Assam and Meghalaya and the Union Territory of Mizoram are administered subject to the provisions of the Sixth Schedule to the Constitution. For the purposes of this Schedule, they are divided into autonomous districts. There are eight such districts, namely, the North Cachar Hills district and the Mikir Hills district in Assam, the United Khasi-Jaintia Hills district, the Jowai district and the Garo Hills district in Meghalaya and the Chakma district, the Lakher district and the Pawi district in Mizoram. Each autonomous district has a district council consisting of not more than 30 members of whom not more than four can be nominated and the rest are to be elected on the basis of adult suffrage. The councils are vested with certain administrative, legislative and judicial powers under the Sixth Schedule.

WELFARE AND ADVISORY AGENCIES

A special officer designated as the Commissioner for Scheduled Castes and Scheduled Tribes investigates all matters relating to the safeguards for the scheduled castes and scheduled tribes provided under the Constitution and reports to the President on the working of the safeguards.

In June 1967, the office of the Commissioner for Scheduled Castes and Scheduled Tribes was reorganised and a separate organisation was set up in the Department of Social Welfare under the charge of a Director-General for Backward Classes Welfare to formulate schemes for the welfare of backward classes, watch the progress of implementation and maintain liaison with the States.

Parliamentary Committee

A new Parliamentary committee on the welfare of scheduled castes and scheduled tribes was constituted in July 1971. The tenure of the first Parliamentary Committee expired on 17 December 1970. The tenure of the present committee is two years.

Welfare Departments in States

The State Governments and Union Territory Administrations have in general separate departments to look after the welfare of the scheduled castes and scheduled tribes and other backward classes. The administrative set-up varies from State to State depending upon the quantum of welfare measures undertaken. In the States of Bihar, Madhya Pradesh and Orissa, separate Ministers have been appointed to look after the tribal welfare as envisaged in article 164 of the Constitution. Some other States have set up committees of members of State legislatures on the pattern of the Parliamentary committee.

Voluntary Organisations

Apart from the Central and State Governments, various voluntary organisations are also engaged in promoting the welfare of the scheduled castes. Important organisations of all-India character are: All India Harijan Sewak Sangh, Delhi; Bharatiya Depressed Classes League, New Delhi; Iswar Saran Ashram, Allahabad; Indian Red Cross Society, New Delhi; Hind Sweepers Sewak Sangh, New Delhi and Ramakrishna Mission, Narendrapur, West Bengal.

Voluntary organisations working for the scheduled tribes are Bharatiya Adimjati Sewak Sangh, New Delhi; Indian Council for Child Welfare, New Delhi; Andhra Pradesh and Andhra Rashtra Adimjati Sewak Sangh; Ramakrishna Mission, Cherrapunji, Ranchi, Puri, Silchar, Along and Shillong; and Thakkar Bapa Ashram, Nimakhandi (Orissa).

The Servants of India Society, Poona and All India Backward Classes Federation, Delhi look after the interests of the backward classes, while Bharatiya Ghumantu Jan (Khanabadosh) Sewak Sangh, Delhi serves the nomadic and semi-nomadic tribes.

The Government of India sanctions grants to national voluntary organisations against specific schemes for the welfare of backward classes. A provision of Rs 2 crores exists in the Fourth Plan for this purpose.

WELFARE SCHEMES

Expenditure during the Plans

A sum of Rs 275 crores was spent on the special Plan programmes for the welfare of scheduled castes/tribes and other backward classes during the period 1950-69, of which Rs 206 crores was spent during the first three Plans and Rs 69 crores during 1966-69. The break-up of the expenditure is given in Table 9.5.

TABLE 9.5
EXPENDITURE DURING 1950-69

(*Rs crores*)

	First Plan	Second Plan	Third Plan	1966-69
Scheduled tribes	17.00	41.00	53.00	69.00
Scheduled castes	6.00	28.00	38.00	
Denotified tribes	1.00	2.00	4.00	
Others	2.00	7.00	7.00	
TOTAL	26.00	78.00	102.00	69.00

In the Fourth Plan, an outlay of Rs 142.38 crores—Rs 60 crores in the Central sector and Rs 82.38 crores in the State sector—has been earmarked.

Plan Programmes

The Plan programmes for the welfare of backward classes fall into three main groups: Centrally-operated, Centrally-sponsored and State sector. Important schemes being implemented under these categories are briefly described below.

Centrally-Operated Schemes

Direct Disbursement of Post-Matric Scholarships

In order to avoid delay in the payment of scholarships to scheduled caste and scheduled tribe students hailing from different States and studying at one place, direct disbursement of inter-State post-matric scholarships has been taken up as an experimental measure in Gauhati from this year.

Coaching-cum-*Guidance Centres*

A large number of posts in the public services reserved for the scheduled caste and scheduled tribe candidates remain unfilled mainly because in a number of cases candidates belonging to these groups do not appear and qualify for these appointments. In order to increase the number of candidates competing for these posts and to enhance their chances of selection, career planning and guidance and pre-employment coaching are given to these candidates in the four coaching-*cum*-guidance centres set up at Delhi, Kanpur, Jabalpur and Madras.

Overseas Scholarships

Scholarships to deserving scheduled caste/tribe students for studies in foreign countries are being awarded by the Union Government since 1953. The number of such scholarships per year is nine—four each to the scheduled castes and scheduled tribes and one to denotified, nomadic and semi-nomadic tribes. Tourist class sea passages are given to students who receive foreign scholarships without travel grants.

Also, 17½ per cent of merit scholarships granted by the Centre to deserving students of the lower income groups for studies in the institutions which are members of the Indian Public Schools Conference are reserved for backward communities. Some of the State Governments offer similar scholarships. Some public schools also award scholarships to deserving backward class students.

Centrally-Sponsored Schemes

Post-Matric Scholarships

Post-matric scholarships are given to eligible scheduled caste students. 37,077 such scholarships were awarded during the First Plan, 1,61,470 during the Second Plan and 3,18,964 during the Third Plan. The expenditure rose from Rs 1.58 crores in the First Plan to Rs 14.88 crores in the Third Plan. During 1966-69, a sum of Rs 15.96 crores had been spent on 3.27 lakh scholarships to the scheduled caste students. During 1969-73, Rs 35.38 crores would be spent on providing 6.62 lakh scholarships.

Post-matric scholarships are also awarded to every eligible applicant belonging to the scheduled tribes. The number of such scholarships given during the First, Second and Third Plan periods was 8,494, 25,592 and 60,058 respectively. The expenditure rose from Rs 42 lakhs during the First Plan period to Rs 2.63 crores in the Third Plan. During 1966-69, Rs 3.11 crores were spent on awarding 65,676 scholarships. During 1969-73, Rs 7.15 crores would be spent on 1,28,000 scholarships to the scheduled tribes.

Pre-Examination Training Centres

Fourteen pre-examination training centres have been set up in the country to impart coaching to the scheduled caste and scheduled tribe candidates appearing in various competitive examinations for entry into the State and Central services, including IAS, IPS and allied services, and services in public sector undertakings. So far 954 candidates appearing in IAS/IPS and allied services have been given training of whom 296 candidates have been finally selected for employment in these services. In addition, a large number of candidates have been able to enter State and Central Government subordinate services.

Tribal Development Blocks

The tribal development blocks scheme is an area development concept focussed on the intensive development of areas pre-dominantly inhabited by the tribal people. There are at present 492 tribal development blocks in the country.

Assistance for Co-operatives

Recognising the fact that the co-operative movement has a vital role to play in the elimination of the exploiters of the weaker sections, especially in the tribal areas, a net-work of co-operative societies —forest labour, multi-purpose, labour contract and construction, and marketing societies and apex co-operative organisations—has been organised with governmental assistance. In order to co-ordinate the activities of the tribal apex co-operative organisations, a co-ordination committee of these institutions has also been set up by the Department of Social Welfare.

Tribal Research Institutes

There are at present eleven tribal research institutes in the country. The working of these institutes was recently reviewed by a Study Team of the Planning Commission. The Study Team has made various recommendations aimed at bringing about better organisation and functioning of these institutes. The recommendations are at present under the consideration of the Government.

State Sector Schemes

The State sector programme for which Central assistance is now given in the shape of block grants and loans can be divided into three main groups, namely, education, economic uplift, and health, housing and other schemes. The particulars of schemes undertaken in each group may be enumerated as below:—

Education

(i) Pre-matric scholarships and stipends
(ii) Exemption from tuition and examination fees
(iii) Provision of educational equipments
(iv) Provision of mid-day meals
(v) Setting up of Ashram schools (basic type residential schools)
(vi) Grants for the construction of school and hostel buildings.

Economic Development

(i) Provision of land and irrigation
(ii) Supply of bullocks, agricultural implements, seeds and manure
(iii) Development of cottage industries

(iv) Development of communications
(v) Co-operation
(vi) Colonisation of shifting cultivators
(vii) Supply of poultry, sheep, pigs and goats.

Health, Housing and Others

(i) Medical facilities
(ii) Drinking water supply schemes
(iii) Provision of houses and house-sites
(iv) Provision of legal aid
(v) Grants to non-official agencies working at State level.

RELIEF AND REHABILITATION

The year 1971 will remain a memorable one in the history of rehabilitation. In that year refugees numbering about 10 million poured into India from East Bengal in the wake of repression by the military junta of West Pakistan and the atrocities committed by the Pakistani armed forces there. The magnitude of the problem can be gauged from the fact that out of the 132 members of the United Nations, the individual population of 84 nations is less than the number of refugees who came to India in 1971. No other nation in the world has had to face a problem of this magnitude at any time in history. This colossal influx imposed an unprecedented strain on the financial and administrative resources of the country. The Government of India decided to give succour to the refugees on humanitarian grounds. The administrative machinery of the Central Government and the State Governments concerned was geared up to handle the problem. About 1,200 camps/reception centres were established for accommodating the refugees. Arrangements were made for the provision and distribution of foodstuffs, drinking water supply and medical attention. A population ranging from four to ten million was looked after for a period of about eight months. Additional resources of the order of Rs 360 crores were mobilised to finance the operations.

From the very beginning it was made clear that the Government of India was looking after the refugees on humanitarian grounds and that the relief to such refugees was really the responsibility of the international community. It was also made clear that the Governments of various countries should use their influence for creating conditions in East Bengal which would be conducive to the safe return of the refugees to their homeland as early as possible.

In response to an appeal by the Secretary-General of the United Nations, offers of aid were received from various UN agencies. The United Nations High Commissioner for Refugees posted a representative at New Delhi to act as a focal point for the aid received from various sources. The total amount of aid offered was about Rs 200 crores. The actual aid received up to 28 March 1972 was about Rs 128 crores.

With the liberation of Bangladesh, an organised programme for the repatriation of refugees was put into operation from 1 January 1972. Repatriation was completed within a period of three months and practically all the refugees returned to their homeland.

The refugees were given at the time of repatriation all necessary facilities in the shape of two weeks' ration in kind, journey money, etc. The Government of India also gave the Government of Bangladesh financial aid to enable each refugee to be given on arrival at the destination in Bangladesh a cash allowance of Rs 30 per adult and Rs 15 per child.

Between 25 March 1971 and 25 March 1972, India handled with decisiveness the tremendous tasks of receiving and maintaining 10 million refugees from Bangladesh and of arranging their orderly return to home—a performance which would have done credit to any administration anywhere in the world. As the UN High Commissioner for Refugees remarked: "The whole unprecedented episode of Bangladesh refugees looks now like a nightmare".

India also despatched to Bangladesh such relief supplies received from abroad as became surplus to requirements due to the return of the refugees and for which specific requests were received from Bangladesh.

Prime Minister's National Relief Fund

From November 1947, when the Prime Minister's National Relief Fund was started, up to the end of March 1972, public contribution to the fund amounted to about Rs 5.81 crores. Over Rs 5.32 crores were utilised in providing relief to people affected by natural calamities such as earthquakes, floods, cyclones, droughts, famines and fire. Relief was also given in the early stages to displaced persons from Pakistan.

During the year under review a major portion of the contributions received was earmarked for relief of the refugees from East Bengal and it was passed on to Bangladesh Assistance Committee, New Delhi.

10 MASS COMMUNICATION

The term mass communication stands for extensive dissemination of information, ideas and entertainment by the use of media which science and technology have made available to modern man. The media include the radio, the film, the television, the Press, advertising and the printed word.

BROADCASTING

Broadcasting in its reach and impact constitutes a most powerful medium of mass communication. It is of special importance as a medium of information and education in a vast and developing country like India where the reach of the printed word is not extensive.

Broadcasting in India is a national service developed and operated by the Government of India. All India Radio (also known as Akashvani) operates this service as one of the media units of the Ministry of Information and Broadcasting.

Though broadcasting made its first appearance in India in the early twenties, its career as an organised system began in 1936 with the establishment of All India Radio. Television broadcasting in India is of a more recent origin. It was launched in September 1959 when All India Radio's first Television Centre was commissioned at Delhi.

In 1947, when India attained Independence, the broadcasting network consisted of only six radio stations. With the launching of the country's First Five Year Plan in 1951, the development of broadcasting was brought within the framework of planned progress. At that stage, the primary service on medium-wave was available to only about 21 per cent of the population of the country. By the end of the fifties, 55 per cent of the population had been brought within its reach, while a second grade service on short-wave was available in most parts of the country. During the last ten years, the medium-wave service has been extended to cover 78 per cent of the population. Under the Fourth Plan schemes, AIR's medium-wave coverage is expected to go up to 80 per cent in a couple of years.

The range of listening to AIR has been rapidly widening. This is evident from the rise in the number of broadcasting receiver licences from a meagre 2,75,000 in 1947 to 1,27,72,228* at the end of 1971. To enable All India Radio to reach rural areas, listening is arranged by means of community listening sets installed for public use in a large number of villages, as also over a network of rural listening clubs.

An Audience Research Organisation within AIR keeps a watch on the range and depth of listening to All India Radio's programmes; on the impact of broadcasting on popular opinions and attitudes; and on the emerging patterns of listeners' preferences. The findings of such surveys and analyses provide the necessary feedback to the programme planners in All India Radio.

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* For circle-wise and receiver-type break-up, please see Table 10.1.

TABLE 10.1

NUMBER OF BROADCAST RECEIVER LICENCES IN FORCE
(As on 31 December 1971)

Name of circle	Domestic	Concessional				Commercial			Possession		Demonstration	Total
		Cheap	Community	School	Hospital	Urban	Rural	Low cost	Dealer	Non-dealer		
Andhra Pradesh ..	7,41,400	1,73,938	6,011	1,982	163	6,660	1,341	389	1,927	187	447	9,34,445
Assam	1,63,493	14,546	3,844	199	4	1,119	209	9	541	20	206	1,84,190
Bihar	3,37,551	59,201	1,282	508	27	3,130	405	258	1,152	99	328	4,03,941
Delhi	3,34,582	1,67,666	108	169	17	8,827	—	—	2,174	88	269	5,13,900
Jammu & Kashmir ..	1,26,117	1,69,250	961	38	1	988	—	—	451	—	172	2,97,978
Gujarat	8,76,387	2,03,272	5,960	778	143	9,227	2,118	1,271	2,519	142	484	11,02,301
Kerala	3,86,928	26,765	4,406	1,345	112	4,121	5,059	93	1,346	36	70	4,30,281
Mysore	6,53,963	77,972	7,031	2,072	53	8,715	2,050	317	1,702	134	220	7,54,229
Maharashtra	19,70,312	1,31,376	29,674	1,999	185	16,443	3,815	327	14,142	1,079	503	21,59,355
Madhya Pradesh ..	4,10,762	61,916	2,751	537	92	4,639	1,425	431	1,725	117	782	4,85,177
Orissa	1,32,605	21,705	933	350	30	1,079	—	—	293	22	146	1,57,163
Punjab	6,96,835	5,10,356	1,794	945	436	8,322	2,532	6,996	3,612	151	527	12,32,506
Rajasthan	3,60,037	1,15,124	1,211	1,541	191	6,355	1,943	1,404	1,546	197	413	4,89,962
Tamil Nadu	10,43,646	1,10,461	19,667	3,151	205	12,293	2,423	312	2,738	554	570	11,96,020
Uttar Pradesh ..	8,38,061	3,69,139	2,905	1,702	210	9,598	1,752	3,897	4,928	119	141	12,32,452
West Bengal	6,28,861	4,73,632	649	637	78	4,564	1,501	402	3,290	84	206	11,13,904
A.P.S.	77,170	7,017	—	—	—	117	—	—	117	—	—	84,421
TOTAL	97,78,710	26,93,336	89,187	17,453	1,947	1,06,197	26,573	16,105	34,203	3,029	5,484	1,27,72,228

The sound broadcast network of all India Radio consists of 40 principal stations, three low-power stations and 24 auxiliary centres. In addition, 30 channels carry a parallel service of popular entertainment called Vividh Bharati. The number of transmitters in use (as on 1 December 1972) is 138, made up of 106 medium-wave and 32 short-wave transmitters.

The principal broadcasting stations of All India Radio are located at Ahmedabad, Allahabad, Bhopal, Bombay, Bangalore, Bhuj, Calcutta, Cuttack, Calicut, Delhi, Dibrugarh, Dharwar, Gauhati, Hyderabad, Indore, Imphal, Jammu, Jaipur, Jullundur, Kurseong, Kohima, Leh, Lucknow, Madras, Mathura, Nagpur, Patna, Poona, Port Blair, Pondicherry, Panaji, Ranchi, Rajkot, Srinagar, Shillong, Silchar, Simla, Tiruchi, Trivandrum and Vijayawada.

The three low-power stations are at Tezu and Passighat (in Arunachal Pradesh) and Aijal (in Mizoram).

The 24 auxiliary relay centres are situated at Agartala, Ajmer, Bhadravati, Bhagalpur, Bikaner, Coimbatore, Cuddapah, Gorakhpur, Gulbarga, Gwalior, Jabalpur, Jeypore, Jodhpur, Parbhani, Raipur, Rampur, Sambalpur, Sangli, Siliguri, Tirunelveli, Trichur, Udaipur, Varanasi and Vishakhapatnam.

The programmes broadcast from All India Radio fall broadly into the following categories:

(i) Regional Programmes are broadcast from different stations in regional languages. While maintaining an underlying national purpose, these programmes are necessarily oriented to the needs of each region fostering and reflecting its culture, aspirations and attainments.

(ii) National Programmes, centrally devised and broadcast from all stations, include programmes of music, plays, features and talks, and those specially designed for occasions of national importance.

(iii) News and Current Affairs Programmes are put out both centrally and from regional stations in all the Indian languages.

(iv) External Services Programmes, put out in Indian and foreign languages, are directed towards listeners in foreign countries and Indians overseas.

(v) Light programmes of music, plays and features are broadcast under Vividh Bharati and its commercial service.

To reach all sections of the people, AIR's programmes in the Home Service are broadcast in 20 principal languages, 22 dialects and as many as 91 tribal languages. In addition, the External Services of AIR beam their programmes to listeners all over the world in 24 languages.

On an average, programmes of the duration of more than 700 hours in the aggregate are broadcast from different stations of AIR daily. Music takes about 43.6 per cent of this time and news about 22.5 per cent. Talks, discussions, plays, features and special items for women, children, farmers, industrial workers, students and other groups occupy the rest of the time. The Vividh Bharati Service makes an additional aggregate of 360 hours a day, bringing the grand total of aggregate hours of broadcasting on AIR to more than a thousand hours a day. A fuller and more precise idea of the programme composition can be had from the following analysis for the year 1971:

TABLE 10.2
COMPOSITION OF HOME SERVICES PROGRAMMES

Type of programme	Duration Hrs.	Mts.	Approximate percentage
Classical vocal	21,657	33	8.6
Classical instrumental	20,175	30½	8.0
Folk vocal	7,013	01	2.8
Folk instrumental	257	08	0.1
Light vocal	25,871	41	10.2
Light instrumental	2,571	30½	1.0
Devotional music	12,211	42	4.8
Film music	14,017	11	5.5
Western music	6,657	02½	2.6
Talks, discussions, etc.	15,814	39½	6.2
Drama	10,182	29	4.0
News	56,823	31	22.5
Religious	827	28	0.3
Children	3,634	23	1.4
Women	3,727	06	1.5
Rural	15,661	28	6.2
Industrial	4,004	38	1.6
Armed forces	4,484	56	1.8
Tribal areas	4,469	09	1.8
Educational	6,249	17	2.5
Publicity	4,276	13	1.7
Others	12,463	29	4.9
TOTAL	2,53,051	09	100.0
Vividh Bharati	1,29,252	24	
GRAND TOTAL	3,82,303	33	

The principal ingredients of AIR's programme output are: Music, Spoken Word, Dramas, Features, News and Current Affairs, Commentaries and Discussions, Vividh Bharati and its Commercial Service, Farm and Home Broadcasts, Programmes for Special Audiences (like Youth, Women, Children, Industrial Workers and Tribal Population) and Programmes for Overseas Listeners broadcast on the External Services.

MUSIC

Broadcasting marked the beginning of an epoch in the history of Indian music. Before its advent, in many parts of the country the classical music had been largely the preserve of the princely courts or the very limited elite class. With the emergence of the radio, there began a process of 'democratisation' leading to an unprecedented interest in the forms and styles of India's ancient musical tradition. This upsurge of interest in its turn engendered a keener appreciation of the subtleties of this great art and a desire to study and practise it.

A major step towards popularising classical music was the starting in 1952 of a weekly National Programme of Music which has been on the air ever since and has presented to a nation-wide audience the leading exponents of the art.

Once every year AIR organises a week-long festival of music (Radio Sangeet Sammelan), which provides listeners an opportunity to enjoy the renderings of noted vocalists and instrumentalists in the country. To encourage and build up younger talent, an annual competition is held before the festival.

AIR's National Orchestra (Vadya-Vrinda) represents the first serious attempt at developing a balanced ensemble of instruments suited to the requirements of the Indian music.

NEWS AND CURRENT AFFAIRS

Through its central and regional news bulletins, commentaries and discussions on current affairs, the News Services Division of AIR provides accurate, objective, speedy and comprehensive coverage of news to listeners at home and abroad. It notices significant developments and major trends in political, economic, social, cultural and scientific fields. It also gives due importance to sports activities and to news emanating from rural areas. Besides news, the Division broadcasts Parliamentary commentaries, background and interpretative talks on major events of the day and discussions on live issues bringing out various facets of the picture which are not possible to be noticed in the news bulletins.

Besides the normal news-gathering channels, a network of 56 full-time correspondents (including two abroad) and 75 part-time correspondents (including five abroad) continuously feed AIR's national and regional bulletins.

The output of news from AIR has been gradually rising. At present as many as 230 bulletins are broadcast every day round-the-clock. Of these, 175 bulletins are broadcast in the Home Services—83 bulletins in 18 languages from Delhi and 92 bulletins in 18 languages and 33 tribal dialects from regional stations. As many as 55 bulletins in 21 languages are broadcast daily in the External Services. Since August 1971, according to a rearrangement of bulletins under the "News on the Hour" scheme, listeners can tune in to news every hour from 6.00 a.m. to midnight, except at 10.00 p.m. when there is no bulletin.

Apart from news bulletins, topical commentaries broadcast both in English and Hindi also form important daily fixed-points. These are 'Spotlight' in English and its Hindi counterpart 'Samayiki'. These commentaries seek to interpret news on topical developments at home and abroad. When Parliament is in session, a daily ten-minute commentary in both English and Hindi reviewing the day's proceedings is an important fixed-point. A sound-picture of important developments in the economic, social, cultural and other fields is given in the English Newsreel and Hindi Samachar Darshan programmes. These are presented in the form of actuality recordings supported by explanatory narration and eye-witness accounts. There are three editions of Radio Newsreel in English and three in Hindi every week. One newsreel a week is devoted to sports.

Every Sunday, a discussion programme entitled "Current Affairs" takes up for consideration a topic which had been in the news during the week.

Apart from these regular fixed-point topical broadcasts, special arrangements are made to meet situations that arise in the country from time to time.

EXTERNAL SERVICES

AIR made its first broadcast to listeners outside India on 1 October 1939. Today, AIR broadcasts in 24 languages for about 51 hours daily round-the-clock, reaching listeners in widely scattered areas of the world.

The External Services in the Indian languages are directed to Indians abroad, the object being to entertain them and to keep them in touch with events and developments in India.

Besides news and commentaries, various other methods of presentation such as talks, discussions, interviews, radio-reports and feature programmes are employed. Indian music, particularly light, folk and instrumental, as also traditional classical music, forms a substantial part of the programmes. An important activity developed in recent years is the supply of recorded programmes, on request, to foreign broadcasting organisations which want to use them for their home audiences with a view to acquainting them with the cultural and social aspects of life in India.

VIVIDH BHARATI AND COMMERCIAL SERVICE

A service for popular entertainment, known as Vividh Bharati, was started on 3 October 1957 to meet the growing demands of popular music and light features. Today, it is broadcast from 30 centres spread all over the country. These are located at Ahmedabad, Allahabad, Bangalore, Bhopal, Bombay, Calcutta, Calicut, Chandigarh, Cuttack, Delhi, Dibrugarh, Dharwar, Hyderabad, Indore, Jullundur, Jaipur, Jodhpur, Kanpur, Lucknow, Madras, Nagpur, Panaji, Patna, Poona, Rajkot, Ranchi, Srinagar, Tiruchi, Trivandrum and Vijayawada.

The Vividh Bharati service has an output of 12 hours and 25 minutes of broadcasts daily, with some additional time on Saturdays and holidays. It consists of light, folk and cinema music, humorous skits, short plays, features and talks and attracts a large number of listeners belonging to all parts of the country and to different strata of society. In August 1971, the programme pattern of Vividh Bharati was modified to suit listening preferences. More local colour was added and the number of programmes in response to listeners' requests was increased.

Commercial advertising was introduced on 1 November 1967 from the Bombay-Nagpur channels of Vividh Bharati on an experimental basis. Encouraged by the response from advertisers and listeners alike, it was gradually extended to other centres. Today, the Commercial Service is broadcast from 18 of the 30 Vividh Bharati centres, namely, Ahmedabad, Allahabad, Bangalore, Bombay, Calcutta, Chandigarh, Delhi, Dharwar, Hyderabad, Jullundur, Kanpur, Lucknow, Madras, Nagpur, Poona, Rajkot, Tiruchi and Vijayawada.

Since May 1970, a part of the commercial broadcasting time is being devoted to what are known as "Sponsored Programmes". The total time available for sale on the commercial channels is between 75 to 85 minutes per day, which is only 10 per cent of the total daily Vividh Bharati broadcasting time. The advertisements are accepted in any language as taperecorded 'spots' of 15 seconds' and 30 seconds' duration. No spot exceeds one minute. The sponsored programmes have a longer duration ranging from 10 to 15 minutes.

Time on the air is sold through accredited, recognised advertising agencies as well as through canvassers and also to individuals direct. The category of the time is determined by the Listeners Research Department of AIR. The rates are determined on the basis of area covered by the transmitters, the buying capacity of the consumers, the economic conditions prevailing in the region and the number of licences obtaining there.

A Code of Conduct, formulated at the start of the Service, guides the staff and the advertisers on broadcasting norms, and ensures that the commercials are not only in good taste but also in conformity with national interest and public welfare. A committee advises on advertisements relating to drugs. Every care is taken to ensure that the items advertised are of good quality.

The gross revenue of the Commercial Service since its inception up to September 1971 amounted to Rs 8,38,42,522 of which

Rs 8,16,20,049 were from 'spots' and the balance from the sponsored programmes.

RADIO SUPPORT TO RURAL DEVELOPMENT

While programmes for rural areas have always been broadcast from every AIR station, in recent years (realising the importance of reaching the farmer in the village itself), a concerted effort has been made to make them more purposeful.

Radio Rural Forums or listening-cum-discussion-cum-action groups have been organised in a large number of villages where community listening facilities exist. Programmes on various aspects of rural life with special emphasis on improvement of agriculture and animal husbandry are broadcast. The number of Radio Rural Forums throughout the country on 31 December 1971 was 25,817.

Apart from the evening half-an-hour hard-core Farm Programme, some of the stations put out special morning and afternoon programmes of 5 to 10 minutes' duration mostly providing topical hints and information to extension workers. These programmes help the extension workers in augmenting their know-how and thus assist them in providing better farm advisory service to farmers.

Not long ago, a study team came to the conclusion that wherever the radio has reached, its impact has been direct and decisive and it has been a powerful factor in changing the outlook, attitudes and efficiency of the farmers in particular and the rural population in general.

RADIO SUPPORT TO FAMILY PLANNING CAMPAIGNS

Family Planning Units at the various stations of AIR, under the guidance of a special cell at the headquarters, plan and produce programmes for use in programmes for rural areas, for industrial workers, women and youth. Also, radio support is provided to the special campaigns organised by the Department of Family Planning and by the State Governments. Family Planning programmes are also projected as a broad-based social movement closely linked with maternity, child health and nutrition.

Family planning programmes are broadcast in all the major languages of the country and a large number of dialects of various regions. The number of such programmes broadcast during 1971-72 was about 20,000.

A number of field surveys on the impact of broadcasts on family planning were undertaken by the Audience Research Unit of AIR during 1971. The following figures give the percentage of those respondents who cited radio as their principal source of information on family planning in a set of towns and villages selected for the survey:

TABLE 10.3
FIELD SURVEY ON FAMILY PLANNING BROADCASTS

City/town	Percentage	Villages	Percentage
Delhi	57.6	Chhatarpur (Delhi)	48.0
Jullundur	87.1	Khajurala (Jullundur)	75.8
Calcutta	89.1	Subhasgram (Calcutta)	75.0
Madras	76.8	Valajabad (Madras)	75.0
Bhopal	44.6	Misrod (Bhopal)	45.1

PROGRAMMES FOR YOUTH

Youth programmes, primarily education-oriented and related to school and university courses, are broadcast regularly from different stations. They also make an attempt to provide a focus of interest and a forum for the younger generation. The programmes, however, do not permit enough involvement of and participation by the youth, being only programmes *for them* and not *by them.*

A decision, therefore, was taken in 1969 to devote, to begin with, as an experimental measure, a whole channel at AIR's premier station—the Delhi Station—to programmes for the youth and by the youth. Thus, on 21 July 1969—coinciding with the momentous moonwalk—All India Radio's first youth service under the banner of 'Yuva Vani' (Voice of Youth) was put on the air with a six-and-a-half hour schedule. Since then, similar services have been introduced from AIR stations at Calcutta (in August 1970) and Hyderabad (in December 1970). The plan is to introduce similar services at other stations as and when adequate transmission time becomes available. Several AIR stations have, as an interim arrangement, introduced daily hour-long youth programmes on the lines of Yuva Vani programmes.

The Yuva Vani and the Youth Services of AIR are basically different from the educational programmes for schools and colleges. They are not tied to any curricula or course of studies. It is a service based on a wide range of programmes—talks, discussions, interviews, plays, features, music — devised and presented by the young people themselves. The appeal of those programmes is not confined to the school-going, college-going youth alone. It cuts across urban-rural, educated-uneducated, working-nonworking group-divisions in an attempt to reach directly the mind of the Indian youth. The people who produce and participate in these programmes are drawn not only from colleges and schools but also from many other social strata and groups.

PROGRAMMES FOR OTHER GROUPS

Special programmes for women and for children are regularly broadcast from 37 stations of AIR at least twice a week. Fourteen stations broadcast daily programmes addressed to the members of the Armed Forces. Special programmes for industrial workers—four to six days in a week—are broadcast from 23 stations. Similarly, stations located close to the tribal belts carry special programmes for Adivasis. The number of such stations is 23. Programmes directed to listeners in border areas are broadcast daily from 18 stations.

TRANSCRIPTION AND PROGRAMME EXCHANGE

The Programme Exchange and Transcription Service of All India Radio helps different stations to exchange outstanding programmes; transcribes the speeches of eminent personalities; and maintains the Library of Sound Archives.

At present, the collection consists of tape-recordings, discs and stampers of a large variety of programmes. The Archives' most valuable possession consists of over 51 hours of recorded voice of Gandhiji. Nearly 3,000 tape-recordings of about 800 hours' duration of Jawaharlal Nehru's speeches constitute another valuable item of preservation in AIR Archives.

Among the other valuable items preserved are: (i) recitation from the Vedas in Sanskrit in the true traditional style; (ii) poetry recitation by eminent poets in Hindi and regional languages; (iii) music recitals by old masters of music, both Hindustani and Karnataka; (iv) selected items of music by eminent musicians representing different "gharanas"; and (v) representative pieces of folk music, devotional music and stage songs.

PROGRAMME JOURNALS

All India Radio brings out eight programme journals. These are: Akashvani (English), Akashvani (Hindi) and Awaz (Urdu) published from Delhi, Betar Jagat (Bengali) and Akashi (Assamese) published from Calcutta; Vanoli (Tamil) and Vani (Telugu) published from Madras; and Nabhovani (Gujarati) published from Ahmedabad. Akashvani (English) is a weekly, while the rest of the journals are fortnightlies. In addition to these eight journals which give advance publicity to the Home Service programmes, AIR brings out eleven other journals intended for the overseas listeners, one each in English, Arabic, Burmese, Chinese, French, Indonesian, Nepali, Persian, Pushto, Swahili and Tibetan. The journal in English, 'India Calling', is a monthly; all others are quarterlies.

TELEVISION

Development of television, as a medium of mass communication, is still at a pioneering stage, a stage at which sound broadcasting was twenty-five or thirty years ago. However, the successful working for the last thirteen years of the television centre at Delhi, the progress made in the work on the implementation of the scheme under the Fourth Five Year Plan for augmenting the Delhi TV Centre and for setting up television centres at a few other places by the middle of 1974, and the preparations now underway for conducting an important experiment in educational television through a geostationary broadcasting satellite to be made available for this purpose in 1974-1975, have altogether brought the development of television in India to a crucial stage.

The television era in India began modestly on 15 September 1959, when All India Radio set up an experimental television service in Delhi. The Delhi TV Centre was designed to serve as an experimentation centre for developing the art and technique of television programming in India; for training an adequate number of programme and technical personnel; for evaluating the television medium as a means of social education and as an aid to development. This objective has been realised and the Television Centre at Delhi has become a full-fledged telecasting station which will, in the years to come, serve as the nucleus for the gradually widening television network in the country.

The television service broadcast from the Delhi Centre is available to viewers within a range of 60 km around Delhi. People living in a number of small townships in Uttar Pradesh, Haryana and Punjab can also see the programmes telecast from Delhi.

With the expansion over the years of the facilities available at the Delhi TV Centre, the transmission time has also been increasing. It was 20 minutes twice a week to begin with. Today, the total duration of the daily evening transmission is more than three-and-a-half hours, with an additional one-hour afternoon transmission on Sundays. TV audience in Delhi and the surrounding areas has been rapidly growing. There are today about 37,600 TV sets in Delhi, most of them, nearly 80 per cent, acquired during the last two or three years.

The Delhi TV Centre's school television service puts out regular in-school instructional programmes on selected subjects, supplementing the regular school classes. Some teachers' training programmes are also telecast. The number of students who benefit by these programmes is estimated to be more than 2 lakhs in 411 schools equipped with TV sets. A project for popularising better agricultural practices through the medium of television has been on since January 1967. These specialised programmes named 'Krishi Darshan' are telecast thrice a week. There were 80 farm teleclubs and from all accounts tele-viewing is getting popular in the villages and is providing support to agricultural extension work.

Apart from special educational and farm programmes, the television service from Delhi provides a variety of fare to the viewers including news, light entertainment, folk music and folk dances, discussions on topical subjects, interviews with experts and eminent personalities, literary programmes, programmes for women and children, film coverage of important events at home and abroad and feature films and documentaries.

The programme for the development of television in the Fourth Plan envisages the augmentation of facilities at the existing TV Centre at Delhi and the establishment of new television stations at Srinagar, Bombay, Calcutta, Madras and Lucknow, and television relay centres at Amritsar, Poona, Kanpur, Durgapur, Asansol and Mussoorie.

Bombay TV station has already been commissioned. Srinagar and Amritsar stations are expected to be commissioned soon while Calcutta (with relay facilities to Durgapur-Asansol), Lucknow (with relay facilities to Kanpur) and Madras stations are expected to be completed by the middle of 1974. The coverage of the Delhi TV station is also proposed to be extended to 80 km by increasing the power of the transmitter and installing a 200-metre tower. A relay transmitter is also proposed to be installed at Mussoorie as an extension of the Delhi TV station.

In the Fifth Five Year Plan period, along with further strengthening of the sound broadcasting system and its extension to areas still lying beyond the existing medium-wave coverage, the emphasis will be on the expansion of the television broadcasting network.

In devising the strategy for the development of a television network in India, the guiding principle is: how best this powerful new medium of mass communication can be harnessed to the requirements of education and development. AIR's experience with sound broadcasting has shown that a mass medium in a large country, with great linguistic and cultural diversity, can be an effective aid to development only when it is oriented to local and regional needs. The technical configuration of a countrywide television network, therefore, has to be planned on the basis of a number of regional networks, the extent of the individual regions to be determined by the linguistic, cultural and agro-economic considerations. Each region will, under this system, have a television network comprising one 'mother' station with full studio and programme-originating facilities and a number of relay stations extending the coverage to the entire region. Thus, the entire country can be covered through the development of twenty regional networks of this kind.

THE PRESS

The Press in India is not subject to State control or censorship. The freedom of the Press is included in the freedom of expression which is guaranteed under the Constitution. The Government of India does not publish any daily newspaper.

821 dailies and 68 tri-/bi-weeklies are published in India and are owned mostly by individuals, joint stock companies, firms and trusts. Nearly a third (32.4 per cent) of the newspapers are published from the four metropolitan cities of Delhi, Calcutta, Bombay and Madras.

The Registrar of Newspapers for India was appointed under the provisions of the Press and Registration of Books (Amendment) Act, 1955. The Press Registrar prepares an annual report on the Press, which is presented to Parliament. The Registrar allocates newsprint quota and recommends import of printing machinery for newspapers.

According to the Press Registrar's report, the total number of newspapers stood at 12,218 at the end of 1971 compared to 11,036 in 1970, an increase of 10.7 per cent over the preceding year. The increase over the quinquennium 1966-1971 has been of the order of 41.4 per cent. Dailies and tri-/bi-weeklies showed a growth rate of 47.9 per cent while the weeklies registered a 50.1 per cent increase during the above quinquennium.

The number of languages in which newspapers appeared separately was 60 in 1971 (including 15 principal and 45 other languages) compared to 53 in 1970.

Out of 12,218 newspapers on record, 889 were dailies (including tri-/bi-weeklies), 3,608 weeklies and 7,721 other periodicals. Statewise, Maharashtra was the largest newspaper publishing State having 1,845 papers, followed by Uttar Pradesh which had 1,682, Delhi 1,341 and West Bengal 1,293. The largest number of dailies, 139, were located in Uttar Pradesh, the lowest, four, appeared from Nagaland. The following Table shows the Statewise breakdown of the number of newspapers according to main periodicities.

TABLE 10.4
NUMBER OF PAPERS (STATE-WISE) 1971

State/Territory	Dailies*	Weeklies	Others	Total 1971	Total 1970	Total 1969
Maharashtra ..	126	516	1,203	1,845	1,706	1,596
Uttar Pradesh ..	139	772	771	1,682	1,473	1,460
Delhi	33	224	1,084	1,341	1,242	1,153
West Bengal ..	39	239	1,015	1,293	1,204	1,129
Tamil Nadu ..	107	119	731	957	870	770
Rajasthan ..	37	302	326	665	572	522
Andhra Pradesh ..	38	206	394	638	587	525
Kerala ..	63	90	480	633	569	518
Gujarat ..	45	144	358	547	527	521
Madhya Pradesh ..	83	270	175	528	467	403
Punjab ..	34	167	262	463	427	406
Mysore ..	64	135	263	462	398	359
Bihar	11	108	149	268	225	206
Haryana ..	8	83	109	200	166	154
Orissa	7	22	106	135	119	121
Jammu & Kashmir	19	79	25	123	102	109
Assam ..	10	41	70	121	110	102
Chandigarh ..	5	35	70	110	95	78
Himachal Pradesh	—	27	41	68	54	44
Manipur ..	9	2	32	43	37	31
Pondicherry ..	—	4	32	36	32	27
Goa	6	9	20	35	32	29
Tripura ..	5	9	1	15	14	12
Andaman & Nicobar Islands	1	2	2	5	4	3
Nagaland ..	—	2	2	4	4	3
Dadra & Nagar Haveli	—	1	—	1	—	—
TOTAL ..	889	3,608	7,721	12,218	11,036	10,281

* Including tri-weeklies and bi-weeklies.

A language-wise study of the newspapers shows that the largest number, 3,116, was published in Hindi, followed by 2,390 in English, 1,005 in Urdu, 760 in Bengali, 741 in Marathi, 615 in Tamil, 594 in Gujarati, 481 in Malayalam, 386 in Telugu, 285 in Kannada, 259 in

Punjabi, 117 in Oriya, 78 in Sindhi, 41 in Assamese and 28 in Sanskrit. Besides, 955 newspapers were published as bilinguals, 217 as multilinguals and 150 in languages not mentioned in Schedule VIII of the Constitution. Table 10.5 shows the distribution of newspapers according to language and main periodicity categories as on 31 December 1971.

TABLE 10.5
NUMBER OF PAPERS (LANGUAGE-WISE)

Language	Dailies*	Weeklies	Others	Total 1971	Total 1970	Total 1969
English ..	85	305	2,000	2,390	2,247	2,123
Hindi ..	251	1,394	1,471	3,116	2,694	2,508
Assamese ..	3	10	28	41	38	35
Bengali ..	20	170	570	760	707	655
Gujarati ..	46	146	402	594	577	561
Kannada ..	41	94	150	285	247	224
Malayalam ..	60	78	343	481	432	394
Marathi ..	80	275	386	741	680	622
Oriya ..	7	17	93	117	103	100
Punjabi ..	18	103	138	259	236	222
Sanskrit ..	1	2	25	28	27	28
Sindhi ..	4	31	43	78	72	67
Tamil ..	99	89	427	615	521	440
Telugu ..	18	102	266	386	361	321
Urdu ..	110	468	427	1,005	898	886
Bilingual ..	29	249	677	955	863	789
Multilingual	5	46	166	217	199	178
Others ..	12	29	109	150	134	128
TOTAL ..	889	3,608	7,721	12,218	11,036	10,281

* Including tri-weeklies and bi-weeklies.

CIRCULATION OF NEWSPAPERS

According to available data, newspapers and periodicals in India had a total circulation of 296.19 lakhs in 1971 compared to 293.03 lakhs in 1970. Out of 6,633 newspapers for which relevant details had been sent by the publishers, 6,310 or 95.1 per cent claimed circulation up to 15,000 copies per publishing day and had a total distribution of 129.61 lakhs or 43.8 per cent of the total. Another 223 newspapers, having circulation between 15,000 and 50,000 copies, reported a total circulation of 59.19 lakhs or 20.0 per cent. However, 100 newspapers belonging to the circulation range of more than 50,000 copies shared 107.39 lakhs or 36.2 per cent of the total circulation of all newspapers in India.

The data available for 5,212 newspapers common to 1970 and 1971 show a 3.4 per cent growth in circulation. The highest increase of 9.4 per cent was achieved by Bengali newspapers, followed by 7.7 per cent by Marathi, 7.0 per cent by Tamil, 5.9 per cent by Gujarati, 4.7 per cent each by Kannada, Malayalam and Oriya and 4.4 per cent by Punjabi newspapers.

A list of dailies commanding a circulation exceeding one lakh copies in 1971 is given below:

TABLE 10.6
DAILIES WITH CIRCULATION ABOVE ONE LAKH

Name, language and place of publication of the daily	Circulation		
	1971	1970	1969
Ananda Bazar Patrika (Bengali), Calcutta	3,08,316	2,48,547	2,31,050
Malayala Manorama (Malayalam), Kottayam	2,11,050	1,93,122	1,78,895
Jugantar (Bengali), Calcutta	2,10,849	1,89,143	1,61,249
Navbharat Times (Hindi), Delhi	1,82,300	1,52,263	1,35,798
Lokasatta (Marathi), Bombay	1,60,084	1,52,870	1,40,557
Times of India (English), Bombay	1,56,904	1,52,542	1,47,492
Hindustan (Hindi), Delhi	1,55,191	1,28,627	1,18,653
Hindustan Times (English), Delhi	1,49,566	1,40,918	1,34,097
Thanthi (Tamil), Madras	1,45,136	1,03,045	1,13,911
Statesman (English), Calcutta	1,45,123	1,40,588	1,40,459
Kerala Kaumudi (Malayalam), Trivandrum	1,42,317	1,37,071	1,21,959
Hindu (English), Madras*	1,41,376	1,33,701	1,50,761
Mathrubhumi (Malayalam), Ernakulam	1,40,271	1,22,844	1,13,238
Mathrubhumi (Malayalam), Calicut	1,25,571	1,21,642	1,21,572
Maharashtra Times (Marathi), Bombay	1,14,789	1,13,303	87,964
Amrita Bazar Patrika (English), Calcutta	1,14,118	1,12,686	1,18,632
Dinamani (Tamil), Madurai	1,11,110	1,03,798	1,00,531
Malayala Manorama (Malayalam), Calicut	1,06,924	95,342	67,685
Tribune (English), Chandigarh	1,05,153	93,849	88,208
Indian Express (English), Bombay	1,03,200	1,04,430	99,489
Sandesh (Gujarati), Ahmedabad	1,02,046	98,696	86,743
Sakal (Marathi), Poona	1,00,784	1,00,700	95,499

* Circulation for first moiety of 1969.

The circulation of common newspapers, language-wise, as on 31 December in 1970 and 1971 is shown in Table 10.7.

TABLE 10.7
CIRCULATION OF COMMON PAPERS (LANGUAGE-WISE)

Language	Number of newspapers 1970	Circulation ('000)		Rate of increase/ decrease (percentage)
		1970	1971	
English	1,135	6,371	6,556	+2.9
Hindi	1,190	5,239	5,294	+1.0
Assamese	12	65	64	—1.5
Bengali	299	1,201	1,314	+9.4
Gujarati	302	1,608	1,703	+5.9
Kannada	154	757	793	+4.7
Malayalam	183	2,198	2,302	+4.7
Marathi	364	1,780	1,917	+7.7
Oriya	51	171	179	+4.7
Punjabi	113	340	355	+4.4
Sanskrit	12	11	10	—0.9
Sindhi	32	112	91	—19.7
Tamil	247	3,062	3,278	+7.0
Telugu	180	940	958	+1.9
Urdu	430	1,230	1,160	—5.7
Bilingual	361	702	683	—2.7
Multilingual	97	153	159	+3.9
Others	50	71	68	—4.2
TOTAL	5,212	26,011	26,884	+3.4

Newspapers published in the following languages commanded circulation exceeding 10 lakh copies each: English—70.03 lakhs; Hindi—60.43 lakhs; Tamil—35.91 lakhs; Malayalam—25.10 lakhs;

Marathi—20.30 lakhs; Gujarati—17.83 lakhs; Bengali—14.96 lakhs; Urdu—13.67 lakhs and Telugu—10.29 lakhs. Among the principal languages, Sanskrit newspapers had the lowest circulation of 11,000 copies. The language and periodicity-wise breakdown as on 31 December 1971 is shown in Table 10.8.

TABLE 10.8
CIRCULATION (LANGAUAGE-WISE AND PERIODICITY-WISE)

(in thousands

Language		Dailies*	Weeklies	Others	Total
English	..	2,222	1,309	3,472	7,003
Hindi	..	1,548	1,796	2,699	6,043
Assamese	..	7	49	12	68
Bengali	..	611	316	569	1,496
Gujarati	..	704	448	631	1,783
Kannada	..	316	247	279	842
Malayalam	..	1,111	768	631	2,510
Marathi	..	914	434	682	2,030
Oriya	..	90	16	92	198
Punjabi	..	73	175	197	445
Sanskrit	..	1	—	10	11
Sindhi	..	21	43	31	95
Tamil	..	908	1,409	1,274	3,591
Telugu	..	241	357	431	1,029
Urdu	..	389	431	547	1,367
Bilingual	..	39	206	586	813
Multilingual	..	—	37	149	186
Others	..	5	24	62	91
TOTAL	..	9,200	8,065	12,354	29,619

* Including tri-weeklies and bi-weeklies.

OWNERSHIP

The largest number of newspapers, 7,559 or 61.9 per cent, and the lowest, 2,262 or 18.5 per cent of the total number of newspapers on record, were brought out under the single individual and the society types of ownership, respectively. There were 98 common ownership units in 1971 owning 285 news-interest newspapers compared to 72 units with 204 newspapers in 1970. The number of news-interest newspapers belonging to such units constituted 2.3 per cent of the total number of newspapers on record in 1971 compared to 1.8 per cent in 1970. Political parties published 98 newspapers at the end of 1971.

NEWSPRINT

During 1971-72 (up to 31 March 1972) 2,23,211 tonnes of newsprint was allocated to such newspapers and periodicals as had applied for it. This included 1,87,531 tonnes of imported newsprint and 35,680 tonnes of Nepa newsprint indigenously produced. The white printing paper was completely taken out from the newsprint allocation policy and substituted by imported newsprint. The countries from which newsprint was allocated were USSR (40,000 tonnes), Poland (5,000 tonnes), Czechoslovakia (6,000 tonnes), Canada (52,995 tonnes), Austria (3,000 tonnes), Scandanavian countries (20,000 tonnes) and 3,500 tonnes of glazed newsprint from Finland. In addition, 41,575 tonnes of newsprint was also imported from Canada under the Canadian International Development Agency and 16,000 tonnes from the USA under the U.S. Aid programme. Owing to continued foreign exchange difficulty and shortage of newsprint, the supply is governed by a Newsprint Allocation Policy which is announced by the Government in April each year.

NEWSPRINT ADVISORY COMMITTEE

An Advisory Committee was set up in July 1964 on the recommendations of the Estimates Committee of Parliament to advise the Government on questions of policy regarding the import and allocation of newsprint and printing machinery for newspapers and other allied matters. The Minister of Information and Broadcasting is the chairman of the Committee. Other members include three nominees of the Indian Language Newspapers Association, six officials and four non-officials nominated by the Government. The Committee meets ordinarily twice a year.

PRESS INFORMATION BUREAU

The Press Information Bureau functions as a link between Government of India and the public through the medium of the Press. Its primary function is to assist newsmen in gathering full information on the Government's working and policy. It also supplies them factual information on the activities of the Government and keeps the Government informed about public reaction, as expressed in the Press, to its policies and performance.

For dissemination of information to the Press, the Bureau, in addition to issuing handouts, press notes and press communiques: (i) arranges Press conferences for Ministers and Secretaries, and briefings of Pressmen by senior Government officials; (ii) furnishes information in response to specific queries by Press representatives; (iii) issues a weekly digest of news, specially for the use of periodicals; (iv) issues articles and features, many of them illustrated; (v) releases news photographs to the Press; and (vi) arranges conducted tours for Pressmen, especially to development project areas.

The Bureau's releases are issued in English, Hindi and 12 other Indian languages from headquarters (New Delhi) and 24 regional offices, linked with headquarters by teleprinter, to the Metropolitan Press in the principal cities as well as small newspapers published from other towns. In addition, a weekly newsletter is issued in Kashmiri by the Srinagar office of the PIB. Since many of these newspapers, specially in the Indian languages, do not subscribe to the services of the news agencies, PIB supplies them factual information on the Government policies and activities in the regional languages and offers them ebonoid blocks of photographs. Representatives of small newspapers are also included in conducted tours.

During 1971, PIB releases were supplied to 3,904 Indian newspapers and periodicals; photographic services to 1,056 newspapers and periodicals and ebonoid blocks to 1,405. The number of Indian and foreign accredited Press correspondents who availed of PIB's services in Delhi was 352. The number of accredited TV film and still cameramen was 88.

A weekly wall newspaper "Hamara Desh" was started from 20 January 1970. Published in Hindi, English, Urdu, Bengali, Tamil and Marathi, the newspaper highlights achievements in agriculture, defence, family planning and Five Year Plans. The display of the wall newspaper in Delhi is arranged by the Directorate of Field Publicity. 40,000 copies of the wall newspaper are printed and displayed every week.

A new photo service in the form of 'Charba', meant for the Urdu newspapers which use the litho process, was started in September 1971. 'Charbas' are supplied to 52 Urdu newspapers all over the country.

Selected news releases, photographs and feature articles, issued by PIB, are disseminated abroad by Indian Missions.

NEWS AGENCIES

The four news agencies in India are: Press Trust of India; United News of India; Samachar Bharati and Hindustan Samachar. While the first two supply news in English, the latter are multi-lingual news agencies.

Press Trust of India, founded in 1905 as the Associated Press of India, was acquired by Reuter's in 1915. PTI reappeared as a co-operative non-profit making news trust in 1948 and took over the interests of the API entirely from the Reuter's news agency in February 1949. It is now owned by 127 share-holding newspapers. No material benefits accrue to the shareholders except the services of the agency. It has 200 subscribers and has the largest news network in Asia and Africa. Over 36,000 km of teleprinter lines, leased by the Government, connect its 66 offices all over India. It has over 200 part-time correspondents and 19 foreign correspondents in Asia, Europe and America. News is supplied by morsecasts, radio and teleprinters. For foreign news, PTI subscribes to Reuter's, Agence France-Presse and the United Press International.

The United News of India was set up on 21 March 1961. Its capital consists of 3,545 equity shares of Rs 100 each subscribed by the newspapers who are also subscribers to the Agency's services. It has 50 branch offices located in the State capitals and other news centres and has over 250 subscribers. UNI has arrangements with seven international news agencies for the supply of foreign news.

Samachar Bharati started its operations on 1 January 1967 with an authorised capital of Rs 50 lakhs and with the objective of promoting the cause of small language newspapers. It has about 25 offices and over one hundred newspaper and other subscribers. The agency distributes news in Hindi, Marathi, Gujarati and Punjabi.

Hindustan Samachar was started in December 1948 as a private limited company but was converted in 1957 into a workers' co-operative society. It has about 120 subscribers and supplies news in different languages using Hindi as a link language to transmit news.

Apart from the news agencies, there are about seven news and feature services which supply news and background material to newspapers. These include India News and Feature Alliance (INFA), the Near and Far East News (NAFEN), the India Press Agency (IPA), the Eastern India News Agency (EINA) and the News Features of India.

PRESS COUNCIL

The Press Council of India was set up on 4 July 1966 under the Press Council Act of 1965. It consists of a chairman and 26 other members and has the twin objective of preserving the freedom of the Press and maintaining and improving the standard of newspapers in the country. As a quasi-judicial body, it adjudicates upon complaints against newspapers, news agencies or journalists believed to have offended against standards of journalistic ethics and public taste. The Council also considers complaints from newspapers, individuals, or associations against any person, group, organisation or Government of interference with the free functioning of the Press.

The Press Council Act was amended in 1970 whereafter the Act now extends to the whole of India. News agencies have also been brought under its operation and the Council can compel an editor to publish the Council's decision, even if that happens to be a censure against his own newspaper. The Council can ask any organisation to produce its accounts for scrutiny. It can also requisition public records from any court or office. Under the amended Act, the

Council can probe into surreptitious flow of foreign money, if any, into a newspaper or a news agency on a complaint by any individual or association without waiting for a reference by the Central Government.

In 1971, 28 complaints pertaining to objectionable writings were considered by the Council. Eight of these were rejected and one was permitted to be withdrawn. In respect of the 19 complaints upheld, five editors were censured and four warned, while the Council expressed its displeasure against one. The Council's opinion about the objectionable writings was expressed in the remaining nine cases but no further action was taken because the editors admitted their impropriety.

The Council received 17 complaints during the year against Governments for interfering with the freedom of the Press. Another four complaints were a carryover from the previous year. Most of the complaints alleged that Governments had withdrawn advertisements from newspapers because of the critical views expressed against the policies of the Government or that the action was taken by way of punishment for the editorial policy of the paper. Three complaints were withdrawn at the investigation stage, four were treated as closed because they did not involve any freedom of the Press or the subject-matter was *sub judice*. Three complaints were adjudicated while the remaining 11 were pending consideration at the end of the year.

The Council framed a code of conduct for editors to be observed during the national emergency which was promulgated in December 1971. Other activities of the Council include the setting up of a Monopoly Committee in October 1970, which is studying the developments that tend towards monopoly or concentration of ownership of newspapers.

Headed by Justice N. Rajagopala Ayyangar, the Council, which was reconstituted on 1 October 1970, will hold office up to 30 September 1973.

NEWSPAPER FINANCE CORPORATION

To safeguard the fundamental principle of freedom of expression, the Government has decided to set up an autonomous Newspaper Finance Corporation to render assistance to deserving newspapers who may be facing financial difficulties. A Bill to set up such a corporation is to be introduced in the Lok Sabha.

FACT FINDING COMMITTEE

The Government of India constituted a Fact Finding Committee on the economics of newspapers and news agencies on 14 April 1972. It will ascertain, *inter alia*, the cost of production of daily newspapers, the elements of total revenue earned by newspapers and evolve norms for different elements of expenditure from the point of view of reasonableness.

FILMS

A record number of 433 feature films, produced in 1971, placed India at the top of the film-producing countries of the world. 132 of the films produced were in colour. Bombay, Calcutta and Madras are the most important centres for the making of films. In 1971, 146 films were produced in Bombay, 37 in Calcutta and 250 in Madras. The number of feature films produced in various languages and certified for public exhibition for selected years since 1947 is shown in Table 10.9.

TABLE 10.9

OUTPUT OF FEATURE FILMS

Language	1941	1947	1951	1956	1961	1966	1967	1968	1969	1970	1971
Assamese	—	—	—	3	2	2	2	1	2	3	5
Arabic	—	—	—	—	—	—	—	2	—	—	—
Bengali	18	38	38	54	36	30	25	29	29	33	30
Dogri	—	—	—	—	—	1	—	—	—	—	—
English	—	—	—	—	—	—	—	—	—	1	1
Gujarati	1	11	6	3	7	2	3	3	6	5	3
Hindi*	79	186	100	123	109	108	85	74**	100	104†	121††
Kannada	2	5	2	14	12	21	24	36	44	38	33
Kashmiri	—	—	—	—	—	—	—	—	1	—	—
Konkani	—	—	—	—	—	—	1	—	1	1	1
Malayalam ..	1	—	7	5	11	31	39	36	31	43	52
Marathi	14	6	16	13	15	12	20	17	16	19	23
Nepali	—	—	—	—	—	1	—	1	—	—	—
Oriya	—	—	—	2	2	2	2	3	2	—	1
Punjabi	2	—	4	—	5	4	5	2	4	2	2
Sindhi	—	—	—	—	—	1	1	1	2	—	1
Tamil	34	29	26	51	49	60	65	68	70	76	73
Telugu	16	6	30	27	55	41	61	77	59	71	85
Tulu	—	—	—	—	—	—	—	—	—	—	2
TOTAL	167	281	229	295	303	316	333	350	367	396	433

* Includes Urdu, Rajasthani and Hindustani films.

** Includes three children's films and two Hindi films with English sub-titles.

† Includes one Hindi film with sub-titles in French.

†† Includes one Bhojpuri, 14 Hindustani, one Maithili and one Chhatisgarhi and four Urdu films.

2,340 short films consisting of 1,463 films in 35-mm and 877 films in 16-mm were also certified for public exhibition. These were:

35-mm

(i) Films other than feature, exceeding 600 metres in length	43
(ii) Short films, 600 metres and below in length	1,420
	1,463

16-mm

(i) Films other than feature, exceeding 240 metres in length	292
(ii) Short films, 240 metres and below in length	585
TOTAL	2,340

Films are produced on various themes. Social subjects, however, predominate and 283 films in this category were produced in 1971. The following Table gives the thematic classification of feature films certified for public exhibition from 1961 to 1971.

TABLE 10.10
THEMATIC CLASSIFICATION

Theme	1961	1966	1967	1968	1969	1970	1971
Social	162	189	195	224	238	254	283
Crime	30	35	60	65	64	80	83
Fantasy	23	15	19	13	11	13	8
Historical	15	6	5	5	2	2	5
Biographical	5	4	2	—	3	3	2
Mythological	32	20	22	15	17	18	16
Legendary	26	22	15	19	27	18	12
Devotional	2	1	4	2	3	1	8
Children	1	5	5	3	—	7	13
Stunt	5	3	3	4	2	—	1
Adventure	2	16	3	—	—	—	—
Political	—	—	—	—	—	—	1
Full Length Documentary	—	—	—	—	—	—	1
TOTAL	303	316	333	350	367	396	433

DOCUMENTARIES AND NEWSREELS

Weekly Indian News Review, cartoon films, quickies and documentaries required for public information, education and instruction are produced by the Films Division of the Ministry of Information and Broadcasting. The Division was set up in 1948 and has produced more than 3,000 films during the last twenty-three years. Most of the films are produced in English and 14 Indian languages. Through its annual production of nearly 150 films, the Division has been recording the contemporary history of India and presenting filmic reports of progress in diverse fields.

Important newsworthy events within and outside India are included in the weekly newsreels. The Films Division has exchange arrangements with 21 foreign newsreel organisations for free exchange of important international news events. Eighteen newsreel cameramen stationed at various centres in India cover important news events. At times, when Films Division cameramen are not available, the events are filmed by stringers or State Government film units. At present, the Films Division releases one regional newsreel per region per month. The frequency of the regional newsreels will be increased to weekly in the near future. The Cartoon Film unit of the Division produces cartoons by using a variety of techniques.

Every cinema in India is required, under the terms of its licence, to exhibit at each performance not more than 608 metres (2,000 ft) of "approved films" supplied by the Films Division on payment of a rental at one per cent of the average weekly collections. The rental received from the cinema exhibitors amounted to Rs 1,17,84,259 in 1971-72. The Division also offers distribution facilities to State Governments for releasing the documentaries and newsreels produced by them.

The Division also supplies prints on loan to government departments, semi-government bodies, educational and charitable institutions, hospitals, social welfare organisations and individuals, etc., through its seven distribution branch offices, as well as through the Regional and Field Publicity Units of the Directorate of Field Publicity for non-commercial shows free of charge.

Documentaries considered suitable for exhibition abroad are supplied on regular basis to 76 Indian Missions abroad. In addition, such films are also supplied to 24 other Missions on demand. Besides the regular arrangements for screening of its documentaries and newsreels in cinema houses in Nepal, Sikkim, Bhutan, Fiji Islands, Mauritius, the Division has entered into arrangements for distribution and exhibition of its films in the cinemas or on television in European countries like USSR, Switzerland, West and East Germany, Czechoslovakia, Hungary and Poland.

During 1971-72, the Films Division produced 90 documentary films including 16 films in colour through its own units and another 23 documentary films, of which 7 were in colour, through outside producers. In addition, 65 newsreels and 43 documentary films, produced by the State Governments, were released on an all-India basis or in their respective regions.

In 1971-72, the Division participated in 40 International Film Festivals and won eight awards. In addition, six documentaries won National Awards for Films for the year 1971 as the Best Films under the main categories 'Film as Art' and 'Film as Communication.'

CENSORSHIP

Films can be exhibited in India only after they have been certified by the Central Board of Film Censors. The Board, set up under the Cinematograph (Censorship) Act of 1952, consists of nine members and a chairman, all of whom are appointed by the Government of India. The headquarters of the Board are at Bombay with regional offices at Bombay, Calcutta and Madras. The Regional Offices are assisted in the examination of films by Advisory Panels, the members of which are appointed by the Government and include educationists, doctors, lawyers, social workers and others.

Producers make applications to the Board in the prescribed manner. The Board examines the films and grants a 'U' certificate for unrestricted public exhibition or an 'A' certificate for exhibition restricted to adults (above the age of 18 years). The Board may direct the applicant to carry out excisions or modifications before granting the certificate. It may also refuse the certificate if the film or any part of it is against the interest of the security of the State, friendly relations with foreign states, public order, decency, morality or involves defamation or contempt of court or is likely to incite the commission of any offence. Whenever any deletions are ordered, their particulars are notified in the Government of India Gazette. The applicants can appeal to the Government of India within 30 days of an order of the Board.

In 1971, the Board granted 'U' certificates to 1,694 Indian and 1,137 foreign films. 'A' certificates were granted to 62 foreign and 12 Indian films. Eleven films consisting of 5 foreign and 6 Indian films were refused certificates. Besides, 1,057 films were classified as 'predominantly educational' by the Board.

COMMITTEE ON FILM CENSORSHIP

In pursuance of a Resolution passed in Rajya Sabha on 7 May 1965, a committee was appointed in April 1968 to enquire into the working of the existing procedure for certification of films for public exhibition in India. It submitted its report on 31 July 1969. Views of State Governments and Union Territories and different sections of the film industry thereon were obtained. The Report has since been examined in detail. Decisions on the recommendations of the Committee are likely shortly.

EXHIBITION FACILITIES

There has been a steady growth of exhibition facilities for showing films in the country. The total number of seats in the cinemas (permanent and touring) at the end of 1970 was 42,76,050. The following Table gives the number of cinemas since 1956.

TABLE 10.11
Number of Cinemas

	1956	1960-61	1965-66	1966-67	1967-68	1968-69	1970 (as on 31 Dec.)	1971
Permanent	2,827	3,579	3,889	4,012	4,199	4,296	4,553	4,716
Touring	980	1,241	1,740	1,853	2,026	2,435	2,587	2,575
TOTAL	3,807	4,820	5,629	5,865	6,225	6,731	7,140	7,291

FILM FINANCE CORPORATION

Following the recommendation of the Film Enquiry Committee, the Government of India set up the Film Finance Corporation in March 1960. Its authorised capital is Rs 1 crore and the issued capital of Rs 50 lakhs has been wholly subscribed by the Government of India. The Government has also given a loan of Rs 95 lakhs of which Rs 12·5 lakhs have been set apart for the exhibition activities contemplated by the Corporation. Up to 31 March 1972, the Corporation had advanced loans totalling Rs 220·32 lakhs for the production of 81 feature films and 24 documentary films in full or part.

In June 1969, the Board of Directors of the Corporation decided to finance mainly low-budget black and white films of good standard and having an Indian approach and content. Accordingly, in the recent films financed by the Corporation, emphasis has shifted from box-office formula to more valid cinematic values. Many of the Corporation-financed films have won national and international awards and have also done well at the box-office.

The Corporation plans to have its own distribution and exhibition set-up. Initially, the Corporation is taking on lease cinema houses in Bombay, Calcutta, Madras and Delhi; eventually, it will have a network of cinema houses all over the country to exhibit Corporation-financed films.

CHILDREN'S FILM SOCIETY

Films for children are produced mainly by the Children's Film Society. It was set up in May 1955 as an autonomous body registered

The fifth general elections to the Lok Sabha were held in March 1971 when over 27 crore voters went to the polls. (Above) Election-eve scene from Ahmedabad.

At a polling booth in Himachal Pradesh.

The ruling Congress Party swept the polls, winning 350 of the 518 elective seats in the Lok Sabha. President V.V. Giri administering the oath of office to Prime Minister Indira Gandhi in New Delhi on 18 March 1971.

In the wake of genocide by the Pakistan army in the erstwhile East Bengal, terror-stricken people started pouring into India in March 1971. Soon their number swelled to one crore, the largest refugee movement in recorded history. India gave them food and shelter and medical help at an enormous cost for ten months. (*Above*) *A group of refugees entering India.*

A large crowd at Comilla (Bangladesh) rejoicing over the liberation of the town by the Indian forces and Mukti Bahini.

Prime Minister Indira Gandhi receiving the nation's highest award, "Bharat Ratna", from President V.V. Giri on 26 January 1972 at a special investiture ceremony at Rashtrapati Bhavan, New Delhi.

Prime Minister Indira Gandhi and President Z.A. Bhutto of Pakistan signing the Simla Agreement on 3 July 1972. The Agreement commits both India and Pakistan to settle their problems through bilateral negotiations and to abjure the use of force.

under the Societies Registration Act, 1860 to undertake the production, acquisition, distribution and exhibition of films specially suited or of special interest to children and adolescents. These films are produced mostly in Hindi and later dubbed in different regional languages. Up to 31 March 1972, it had produced or acquired 75 films including features, cartoons, puppets and short films.

Under its scheme of producing films on national integration, an essay competition on "What I would Like to See in My Country" was organised in all the Indian languages. The 37 successful children were then taken on a month-long tour of the country. A film based on their experiences is being produced under the title "Bharat Darshan" by the Society.

The films are distributed for exhibition in theatres with nominal admission fee and are loaned to educational institutions on a nominal hire. Prints are supplied to member State Governments for use by mobile exhibition vans in rural areas. The films are also shown on television.

The Society organises children's film weeks in different parts of the country and participates in national and international film festivals. Its films have been exported to Mauritius, German Democratic Republic, Surinam (South America), North Guiana, Ceylon, USA, USSR, Britain, Canada and Australia.

NATIONAL AWARDS FOR FILMS

National Awards (previously called State Awards) are given to films of high aesthetic and technical standards and of social, educational and cultural value since 1954*. They consist of President's Gold Medal (for the best feature film of the year), the Prime Minister's Gold Medal (for the best children's film) and the President's Silver Medal (one each for the second best feature film and the best feature film on national integration). The scheme of awards also provides for prizes for feature films in each regional language as well as for excellence in direction, cinematography, screen-play and best actor, actress, child actor, male and female play-back singers, music director and lyric-writer of the best song on national integration. An outright grant of Rs 2,000 is given to producers who undertake to subtitle/dub an award-winning regional feature film in Hindi to promote nation-wide circulation of non-Hindi films in Hindi speaking areas. The Department of Family Planning has instituted awards for feature and short films on family planning. Some State Governments have also, instituted awards for films in their languages. A feature film winning an all-India award is not eligible for a regional award. In 1970, Dadasaheb Phalke Award** for outstanding contribution to the cause of Indian cinema was instituted.

In 1971, rules for the grant of national awards for films were revised. Instead of the present three-tier system of award committees for selection of films for awards, there will now be a two-tier system by doing away with Primary, Documentary and Short Film Committees. Also, the value of the cash awards for the 'National Best Feature Film,' 'Second Best Feature Film' and 'Best Film on National Integration' has been enhanced.

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*A list of Eighteenth National Awards for Films (1970) and the Nineteenth National Awards for Films (1971) is given at the end of this chapter.

**Smt. Devika Rani Roerich received the first Award on 21 November 1970. The Award for 1971 was conferred on B.N. Sircar. The 1972 Award was conferred posthumously on Prithviraj Kapoor,

FILM FESTIVALS

India participated in a number of international film festivals during 1971-72. Two feature films and eleven documentaries won prizes and medals at these festivals. The feature films 'Sagina Mahato" won Afro-Asian Committee's prize at the Seventh International Film Festival at Morocco while "Pratidwandi" won a prize at the thirty-second International Exhibition of Cinematographic Art at Venice. The award-winning documentaries during the year were : "The House that Ananda Built," "Krish", "The Circle", "Trip", "Magic of the Rails", "Gaddis", "My Land My People", "Chandigarh", "Indian Jewellery", "Water and the Land" and "Amrita Sher-Gil".

India's cultural agreements with foreign countries promote reciprocal film festivals. In May-June 1971, a festival of Indian films was held at Budapest (Hungary) where five feature films and four documentaries were screened. In India, Polish films were shown in October-December 1971, while a festival of Czech films was held from 11 February to 23 March 1972.

FILM & TELEVISION INSTITUTE OF INDIA

Film and Television Institute of India (formerly Film Institute of India) was set up by the Ministry of Information and Broadcasting at Poona in 1960 for providing training in the art and craft of film making. The Institute imparts training in film direction, screen-play writing, motion picture photography, sound recording and sound engineering, film editing and film acting. The first four courses are of three years' duration and the last two are for two years each. At present, 172 students, including 13 foreigners and 15 girls, are undergoing training in various courses.

As a part of their training programmes, the students of the Institute produced 13 Diploma films and 16 documentary films during the academic year 1971-72. Some of the Institute's films are approved by the Film Advisory Board for general release. The Institute also runs a small Employment and Guidance Bureau to help its students to find suitable jobs. Some of those who have passed out from the Institute have made their mark in the film industry. The Best Actress award at the 18th National Awards for Films was won by Rehana Sultan, a product of the Institute. Jaya Bhaduri won a special award at the Filmfare Awards for her performance in 'Uphaar'. The Institute films have also won awards and certificates of merit at international film festivals.

The Television Wing of the Institute started functioning in Delhi from 1971. The first training course began on 6 September 1971. The primary object of the Television Wing is to meet the basic need of training personnel to man the new television stations which are proposed to be set up. The Television Training Centre will shift to Poona in 1973 after the construction of the television studios and other related buildings, the work on which is in progress.

NATIONAL FILM ARCHIVE OF INDIA

The National Film Archive of India was established in 1964 with the primary objective of acquisition and preservation of national and international cinema; film classification, documentation and research; and encouraging film study and spread of film culture. Its collection as on 31 December 1971 amounted to 732 films, 549 Indian and 183 foreign. It has also a collection of ancillary film material like 4,851 photographic stills, booklets, 1,642 wall posters and 872 disc records, etc.

The most important Indian films acquired during 1971 were

Prabhat Talkies' "Amrit Manthan" (1934), "Amar Jyoti" (1936) and "Manoos" (1939), Bombay Talkies' "Jhoola" (1941), "Milan" (1946) and "Mashaal" (1950) and New Theatres' "Dushman" (1939) and "Nartaki" (1940). Mrinal Sen's "Bhuvan Shome" (1969) has also been acquired.

The Archive has arrangements for exchange with Belgium, Canada, Czechoslovakia, Germany (East and West), Italy, Netherlands, Rumania, Soviet Union and the United Kingdom. Foreign film classics, acquired on an exchange basis, include Flaherty's "Nanook of the North" (USA, 1922), "Moana" (1926), "Man of Aran" (1936), Murnau's "Sunrise" (USA, 1927) and Prabst's "Kameradschaft" (Germany, 1931).

The Archive maintains a distribution library of 47 film classics (Indian and foreign) along with related literature which is loaned to film societies and film study groups on a nominal service charge for non-commercial study screenings.

EXPORTS

Indian films are exported to nearly 90 countries in the world. The traditional markets are the Gulf countries, Canada, Ceylon, East Africa, Fiji, Indonesia, Iran, Malaysia, Mauritius, Singapore, Thailand, UK, USA, West and North Africa and West Indies. The demand is mainly for Hindi and Tamil films. During the first half of 1971, export earnings amounted to Rs 231·39 lakhs.

Export is undertaken by merchant-exporters and producer-exporters. In the public sector, the Indian Motion Pictures' Export Corporation was set up in September 1963 with a share capital of Rs 25 lakhs subscribed by both the industry and the Government. IMPEC became a subsidiary of the State Trading Corporation of India in April 1967. Among the objectives of the Corporation are the purchase and export of films and development and maintenance of facilities for marketing and exhibition of Indian films abroad.

IMPEC's export earnings amounted to Rs 53.03 lakhs in 1971-72 as against Rs 47.04 lakhs in 1970-71. During the year, the Corporation succeeded in selling 15 Indian films to non-traditional markets like Peru, Ecquador and Bolivia. A five-year agreement with Sovexportfilm was signed whereby the USSR will buy films worth a minimum of Rs 10 lakhs during 1972. The Corporation has made distribution arrangements for its films in Singapore and Malaysia and is planning to make similar arrangements in Iran and the West Asia.

IMPORT OF CINEMATOGRAPHIC FILM AND EQUIPMENT

A public sector company, Hindustan Photo Films, manufactures cine film positive but its production has to be supplemented with imports to meet the needs of the film industry. On behalf of the State Trading Corporation of India, the Indian Motion Pictures' Export Corporation arranged imports of raw film valued at Rs 589.56 lakhs during 1971-72.

The quantity and value of cinematographic film and equipment imported from1968-69 to 1971-72 are shown in Table 10.12.

PUBLICATIONS

NATIONAL BIBLIOGRAPHY

Under the Delivery of Books (Public Libraries) Act, 1954, a copy of every book published in India is received by the National Library, Calcutta. This has enabled the Indian National Bibliography Unit of the Central Reference Library, Calcutta, to compile and publish in Roman script the 'Indian National Bibliography'—a classified

TABLE 10·12
CINE FILM AND EQUIPMENT IMPORTS

Year	Raw film		Exposed film		Sound recording equipment (value in Rs lakhs)	Projection equipment* (value in Rs lakhs)
	Metres (lakhs)	Value (Rs lakhs)	Metres (lakhs)	Value (Rs lakhs)		
1968-69	432.04	304.77	47.21	69.55	1.68	63.79
1969-70	614.12	473.10	22.55	31.15	2.14	31.37
1970-71	777.86	532.59	23.30	36.68	1.91	170.39
1971-72 (up to Nov. 1971)	665.29	449.38	12.90	19.86	0.88	14.67

*Includes value of parts and accessories of cinematographic cameras, projectors, sound recorders, etc., for which separate figures are not available.

catalogue of current Indian publications. The Bibliography is in two parts: the first part covers publications of the general book trade while the second lists government publications including those of the quasi-Government bodies.

GAZETTEERS

As part of the general educational development, the Government of India took up the work of revising the Gazetteers of India in 1958. State Governments were given financial assistance for the revision of District Gazetteers. The quantum of Central assistance has now been raised from 40 per cent to cent per cent, subject to a maximum of Rs 60,000 for each District Gazetteer. The first volume of the Gazetteer of India 'Country and People' was released in 1965. Volume II of the Gazetteer of India, 'History and Culture', is under print. Work on volume III, 'Economic Structure and Activities', is underway. The revision of District Gazetteers has been taken up by all the State Governments and Union Territories. So far, 187 Gazetteers have been completed, of which 174 have been approved for publication. One hundred and five volumes have been released and the rest are at various stages of publication.

Compilation of a Gazetteer of Bhutan has been taken up in collaboration with the Royal Government of Bhutan.

"Who's Who of Indian Martyrs", Vol. I, carrying brief sketches of the martyrs who were hanged or killed during the country's struggle for freedom from 1857 to 1947, was published in 1969 to synchronise with the Gandhi Centenary celebrations. Volume II, which includes the life-sketches of partiots who were hanged or killed in the struggle for liberation of the French and Portuguese possessions in India and also those in the former Princely States, was published in May 1972.

COPYRIGHT

The Copyright Act, 1957 (14 of 1957), which amended and consolidated all previous laws on the subject, came into force on 21 January 1958. It provides for the establishment of a Copyright Board for adjudication on certain matters specified in the Act. Until 29 February 1972, the copyright in 13,399 works comprising 5,825 literary works, 7,563 artistic works and 11 cinematograph films was registered by the Copyright Office. The Government have also extended the protection under the 1957 Act to the works of more than 75 foreign countries.

India acceded to the Universal Copyright Convention on 21 January 1958. She is also a signatory to the Berne Convention on Copyright, as revised at Brussels in 1948. At a diplomatic conference held at Stockholm in 1967, the Berne Convention was revised further but it has yet to be adopted by most of the countries including India. The universal copyright convention was last revised at the diplomatic conference held at Paris in July 1971. The revised text provides for certain facilities to developing countries for bringing out translations and reproduction rights. The convention has yet to be ratified by India.

PUBLICATIONS DIVISION

The Publications Division of the Ministry of Information and Broadcasting brings out publications to provide authentic information about the country, its cultural heritage, progress in various sectors of economy and policies and activities of the Government. The Division also brings out selected speeches and writings of national leaders and their biographies under the series "Builders of Modern India." A large number of low-priced books for the youth in the age group 17-20 has been brought out.

To foster national integration, the 'States of our Union' series seeks to introduce the people of each State to the others. Books on Andaman and Nicobar Islands, Andhra Pradesh, Assam, Haryana, Himachal Pradesh, Kerala, Maharashtra, Orissa, Punjab, Rajasthan and Uttar Pradesh have been released while others are under preparation.

The Division brings out four monthly journals, seven fortnightlies and one quarterly. "Yojna", a fortnightly journal devoted to planning, is brought out in English, Hindi, Assamese, Bengali and Tamil. Other popular journals are "Indian and Foreign Review", "Ajkal" (Hindi and Urdu) and "Bal Bharti" (Hindi).

The Division also acts as sales and distribution agency for some publications of the All India Handicrafts Board, the Directorate of Advertising and Visual Publicity, Lalit Kala Akademi, the Ministry of Education, National Museum and the Archaeological Survey of India.

ADVERTISING AND VISUAL PUBLICITY

DIRECTORATE OF ADVERTISING AND VISUAL PUBLICITY

The Directorate of Advertising and Visual Publicity is the central agency of the Government of India for undertaking mass publicity campaigns on behalf of the various Ministries, departments and autonomous bodies under the Government. The material released or prepared by the Directorate includes advertisements, printed publicity material like posters, folders and brochures; out-door publicity items like hoardings and metallic tablets for display on kiosks, trams, buses and trains; exhibitions and radio spots for the commercial broadcasts of All India Radio.

While selecting newspaper media for Government advertisements, preference is given to medium and small newspapers. To qualify for Government advertisements, newspapers must have a paid circulation of not less than 1,000 and be regular in publication; a period of six months of uninterrupted publication is essential. They are also required to maintain the requisite production standards and adhere to accepted standards of journalistic ethics.

To encourage improvements in printing and layout, the Directorate organises every year a competition for National Awards for Excellence in Printing and Designing.

The Exhibition Division of the Directorate, which has 31 field units, organised 765 exhibitions in 1971-72 which were visited by nearly 1.35 crore people. The exhibition on the Indo-Pak war was opened on 18 December 1971, the day after the end of hostilities.

ADVERTISING COUNCIL OF INDIA

Founded in 1959 by the Indian and Eastern Newspapers' Society, the Indian Languages Newspapers' Association, the Indian Society of Advertisers, the Advertising Agencies' Association of India and the Master Printers, the Advertising Council of India is an advisory and consultative body. Apart from evolving an ethical code for the conduct of advertising in the country and supervising the observance of this code, the Council concerns itself with problems of education in advertising and with public service advertising.

FIELD PUBLICITY

People in remote villages and hilly border areas have a relatively lesser opportunity to see films or have access to information on current developments through other media. The Directorate of Field Publicity, set up in 1953, seeks to fill this gap by taking information and purposive entertainment to the common people. Field publicity programmes consist of film shows accompanied by talks, group discussions, exhibitions and live entertainment programmes. The latter include traditional media like 'Harikatha', 'Burrakatha', 'Bhajan' and 'Qawwali', as well as songs and plays on the themes of national unity, development and defence.

The Directorate distributes publicity folders, posters, pamphlets and other information material. It also commissions special films for utilisation in tribal areas, as well as posters and booklets for intensive campaigns in particular areas from time to time.

The Directorate has 192 mobile field publicity units under 17 regional offices.

The Directorate not only informs the people on various aspects of the developmental process, but gathers public reactions to policies and programmes as feedback for the administration. It conducts impact surveys in respect of films, song and drama programmes and printed literature.

SONG AND DRAMA

The Song and Drama Division of the Ministry of Information and Broadcasting, established in 1953, has become the biggest live-entertainment organisation. Through its seven departmental drama troupes, 28 troupes on the international border and 9 troupes of the Armed Forces Entertainment Wing, the Division presents various types of programmes for the masses, which include both rural and urban people, tribal people in interior-most areas and especially the armed personnel. The programmes create an awareness of the social, economic and democratic ideals cherished by the nation. In addition to these troupes, private parties/artistes registered by the Division from all over India, conduct different types of programmes through the Division's regional centres and the offices of the Directorate of Field Publicity.

In 1970, the Division created Theatre Panosonic—a 'Sound and Light' spectacle with live action by 200 to 300 artistes. This programme can be witnessed from different angles by thousands of people at a time. One such programme on our people's freedom struggle was presented in Delhi and attracted large audiences.

RESEARCH AND REFERENCE

The Research and Reference Division of the Ministry of Information and Broadcasting studies in depth the problems of national significance and provides reference service to the Media Units of the Ministry of Information and Broadcasting and others. The Division's regular services include 'Background to the News' and the 'Bulletin on Film', which records every month the main trends in Indian and foreign film industry. The Division also compiles 'India—A Reference Annual', which is a standard work of reference and provides objective and authentic information on diverse aspects of our national life and activities.

MASS COMMUNICATION TRAINING

INDIAN INSTITUTE OF MASS COMMUNICATION

The Indian Institute of Mass Communication was set up in August 1965 as a centre for advanced study in mass communication in India. Its activities have been geared to meet the communication requirement of the Central and State governments and also the corporate bodies both in the private and public sectors. The Institute has also been functioning as a regional centre of training in mass communication for countries in Africa and South East Asia. The Asian and African trainees, seconded under the Colombo Plan and the Special Commonwealth African Assistance Plan Programme, are admitted to the Diploma Course in Journalism for Developing Countries.

The Institute's research programme aims at development of scarce mass media expertise and resources in the country and promotion of integrated media use for achieving the optimum results in communication programmes. Through its research reports, the Institute seeks to provide feedback to the media users for improving communication strategies and policies.

NATIONAL AWARDS FOR FILMS 1970

Category	Award	Film	Language	Awardee
Best feature film	President's Gold Medal and cash prize of Rs 40,000	'Samskara'	Kannada	T. Pattabhirama Reddy, (Producer-Director)
Second best feature film	Special award Rs 15,000 and a medal	'Pratidwandi'	Bengali	Nepal Dutta and Ashim Dutta (Producers). Also Rs 5,000 and a plaque for Satyajit Ray (Director)
Best feature film on national integration	Rs 30,000 and a medal	'Thurakkatha Vathil'	Malayalam	A. Raghunath (Producer). Also Rs 10,000 and a plaque for P. Bhaskaran (Director)
Excellence in direction	Rs 5,000 and a plaque	'Pratidwandi'	Bengali	Satyajit Ray
Excellence in black and white cinematography	Rs 5,000 and a plaque	'Uski Roti'	Hindi	K.K. Mahajan
Excellence in colour cinematography	Rs 5,000 and a plaque	'Mera Naam Joker'	Hindi	Radhu Karmakar
Best screen-play	Rs 5,000 and a plaque	'Pratidwandi'	Bengali	Satyajit Ray
Best actor	A figurine (Bharat Award)	'Dastak'	Hindi	Sanjeev Kumar
Best actress	A figurine (Urvashi Award)	'Dastak'	Hindi	Rehana Sultan
Best male play-back singer	A plaque	'Nishi Padma' and 'Mera Naam Joker'	Bengali Hindi	Manna Dey
Best female play-back singer	A plaque	'Jay Jayanti' and 'Nishi Padma'	Bengali	Sandhya Mukherjee
Best child actor	A plaque	'Mera Naam Joker'	Hindi	Rishi Kapoor
Best music director	Rs 5,000 and a plaque	'Dastak'	Hindi	Madan Mohan
Best social documentation film	Rs 5,000 and a medal	'Latent'	English	M/s Film-o-Pub (Producers). Also Rs 2,000 and a plaque for Biplab Ray Chaudhuri (Director)

NATIONAL AWARDS FOR FILMS 1971

Category	Award	Film	Language	Awardee
Best feature film	President's Gold Medal and cash prize of Rs 40,000	'Simabaddha'	Bengali	Bharat Shumshere Jung Bahadur Rana (Producer). Also Rs 10,000 and a plaque for Satyajit Ray (Director)
Second best feature film	Special award—Rs 15,000 and a medal	'Anubhav'	Hindi	Basu Bhattacharya—(Producer-Director)
Best feature film on national integration	Rs 30,000 and a medal	'Do Boond Pani'	Hindi	Khwaja Ahmad Abbas (Producer-Director)
Excellence in direction	Rs 5,000 and a plaque	'Vamsha Vriksha'	Kannada	Girish Karnad and B.V. Karanth
Excellence in black and white cinematography	Rs 5,000 and a plaque	'Anubhav'	Hindi	Nando Bhattacharya
Excellence in colour cinematography	Rs 5,000 and a plaque	'Reshma Aur Shera'	Hindi	Ramchandra
Best screen-play	Rs 5,000 and a plaque	'Ekhonee'	Bengali	Tapan Sinha
Best actor	A figurine (Bharat Award)	'Rickshawkaran'	Tamil	M.G. Ramachandran
Best actress	A figurine (Urvashi Award)	'Reshma Aur Shera'	Hindi	Waheeda Rehman
Best male play-back singer	A plaque	'Nimantran'	Bengali	Hemant Mukherjee
Best female play-back singer	A plaque	'Savalay Samali'	Tamil	P. Susheela
Best child actor	A plaque	'Ajab Tuze Sarkar'	Marathi	Master Sachin
Best music director	Rs 5,000 and a plaque	'Reshma Aur Shera'	Hindi	Jaidev
Lyric writer of the best film song on national integration	A plaque	'Nanak Dukhia Sab Sansar'	Punjabi	Prem Dhawan
Best children's film	Rs 7,500 and a medal	'Wings of Fire'	English	Produced by Cinegraphic Art for Films Division. Also Rs 2,500 and a plaque for M.M. Sharma (Director)
Best information film (documentary)	Rs 5,000 and a medal	'Bhutan'	English	Films Division, Pramod Pati (producer). Also Rs 2,000 and a plaque for P.N. Kaul (Director)
Best educational/instructional film	Rs 5,000 and a medal	'Recollections'	English	Films Division, Mohan Wadhwani (Producer). Also Rs 2,000 and a plaque for Biren Dass (Director)
Best social documentation film	Rs 5,000 and a medal	'A Village Smiles'	English	S. Sukhdev—(Producer-Director)
Best promotional film (commercial)	A medal	'Creations in Metal'	English	Produced and directed by Homi D. Sethna for Films Division
Best promotional film (non-commercial)	A medal	'This my Land'		Films Division, N.S. Thapa (Producer). Also a plaque for M.N. Ghate and N.D. Keluskar (Compilers)

11 ECONOMIC STRUCTURE

India is rich in natural resources and man-power. These resources have, however, not been exploited fully and are capable of greater utilisation. The Indian economy is still predominantly agricultural; about half of the country's national income is derived from agriculture and allied activities which absorb nearly three-fourths of its working force. Since Independence, the aim has been to diversify the economy by accelerating the pace of industrial development, increase agricultural productivity and achieve all-round progress under the national plans.

NATIONAL AND PER CAPITA INCOMES

Table 11.1 gives the revised series of estimates of national and per capita incomes for selected years since 1960–61, at current and 1960–61 prices, as compiled by the Central Statistical Organisation. According to this computation, there was an increase of 5.3 per cent in the net national income in 1969–70 compared to the preceding year at 1960–61 prices against a rise of 2.4 per cent in 1968–69 over 1967–68.

TABLE 11·1
NATIONAL AND PER CAPITA INCOMES AT FACTOR COST

Item	1960-61	1965-66	1966-67*	1967-68*	1968-69*	1969-70*
Net national product (Rs crores)						
at current prices	13,294	20,621	23,903	28,374	28,678	31,174
at 1960-61 prices	13,294	15,021	15,243	16,660	17,057	17,955
Per capita net national product (Rs)**						
at current prices	306.3	426.1	482.9	560.8	554.7	589.3
at 1960-61 prices	306.3	310.4	307.9	329.2	329.9	339.4
Index number of net national product with 1960-61 as base						
at current prices	100.0	155.1	179.8	213.4	215.7	234.5
at 1960-61 prices	100.0	113.0	114.7	125.3	128.3	135.1
Index number of per capita net national product with 1960-61 as base						
at current prices	100.0	139.1	157.7	183.1	181.1	192.4
at 1960-61 prices	100.0	101.3	100.5	107.5	107.7	110.8
Gross national product (Rs crores)						
at current prices	14,029	21,839	25,285	29,889	30,329	33,019
at 1960-61 prices	14,029	16,023	16,307	17,777	18,225	19,173
Index number of gross national product						
at current prices	100.0	155.7	180.2	213.1	216.2	235.4
at 1960-61 prices	100.0	114.2	116.2	126.7	129.9	136.7

*Provisional.

**The implicit estimates of population exclude the population of (i) Dadra & Nagar Haveli, (ii) Goa, Daman & Diu, and (iii) Pondicherry in 1960-61.

Per capita income during 1969–70 at 1960–61 prices increased by 2.9 per cent over the corresponding figure for the preceding year as against a small rise of 0.2 per cent in 1968–69.

Table 11.2 gives the national product and some related aggregates at current prices for selected years since 1960–61 with percentages given in brackets.

TABLE 11·2
NATIONAL INCOME AND SOME RELATED AGGREGATES

(*Rs crores*)

	1960-61	1965-66	1966-67*	1967-68*	1968-69*
Net domestic product at factor cost	13,366 (100.5)	20,786 (100.8)	24,136 (101.0)	28,633 (100.9)	28,936 (100.9)
Net factor income from abroad	—72 (—0.5)	—165 (—0.8)	—233 (—1.0)	—259 (—0.9)	—258 (—0.9)
Net national product at factor cost	13,294 (100.0)	20,621 (100.0)	23,903 (100.0)	28,374 (100.0)	28,678 (100.0)
Indirect taxes *less* subsidies	947 (7.1)	2,082 (10.1)	2,182 (9.1)	2,424 (8.5)	2,677 (9.3)
Net national product at market prices	14,241 (107.1)	22,703 (110.1)	26,085 (109.1)	30,798 (108.5)	31,355 (109.3)
Allowance for depreciation	735 (5.5)	1,218 (5.9)	1,382 (5.8)	1,515 (5.3)	1,651 (5.8)
Gross national product at market prices	14,976 (112.6)	23,921 (116.0)	27,467 (114.9)	32,313 (113.8)	33,006 (115.1)
Gross national product at factor cost	14,029 (105.5)	21,839 (105.9)	25,285 (105.8)	29,889 (105.3)	30,329 (105.8)
Net domestic product at factor cost	13,366 (100.5)	20,786 (100.8)	24,136 (101.0)	28,633 (100.9)	28,936 (100.9)
Less income from domestic product accruing to Government	187 (1.4)	345 (1.7)	367 (1.5)	391 (1.4)	496 (1.7)
Income from domestic product accruing to private sector	13,179 (99.1)	20,441 (99.1)	23,769 (99.4)	28,242 (99.5)	28,440 (99.2)
National debt interest	59 (0.4)	175 (0.9)	233 (1.0)	243 (0.9)	247 (0.9)
Net factor income from abroad	—72 (—0.5)	—165 (—0.8)	—233 (—1.0)	—259 (—0.9)	—258 (—0.9)
Transfer payments	166 (1.3)	266 (1.3)	311 (1.3)	357 (1.2)	417 (1.4)
Other current transfers from the rest of the world	28 (0.2)	72 (0.3)	88 (0.4)	104 (0.4)	128 (0.4)
Private income	13,360 (100.5)	20,789 (100.8)	24,168 (101.1)	28,687 (101.1)	28,974 (101.0)

*Provisional.

Table 11.3 gives the share of public and private sectors in domestic product at current prices.

TABLE 11.3
SHARE OF PUBLIC AND PRIVATE SECTORS IN DOMESTIC PRODUCT

(*Rs crores*)

Item	1960-61	1965-66	1966-67*	1967-68*	1968-69*
Gross domestic product	**14,101**	**22,004**	**25,518**	**30,148**	**30,587**
Gross product of public sector	1,534	2,957	3,326	3,767	4,290
Government administration	735	1,367	1,546	1,780	1,994
Departmental enterprises	586	973	1,047	1,108	1,243
Non-departmental enterprises	213	617	733	879	1,053
Gross product of private sector	12,567	19,047	22,192	26,381	26,297
Net domestic product	**13,366**	**20,786**	**24,136**	**28,633**	**28,936**
Net product of public sector	1,419	2,740	3,065	3,455	3,945
Government administration	735	1,367	1,546	1,780	1,994
Departmental enterprises	522	890	959	1,010	1,140
Non-departmental enterprises	162	483	560	665	811
Net product of private sector	11,947	18,046	21,071	25,178	24,999

*Provisional.

EMPLOYMENT

A continuous and comparable series on the level of unemployment in the country is not yet available. However, employment exchange statistics give an idea of the level of unemployment; the number on the live registers of the exchanges is a measure of the job-seekers. But employment exchange statistics cover mainly urban areas. Registration with the employment exchanges being voluntary, only a portion of the unemployed register themselves with the exchanges. Some of the registrants are already employed but have registered for seeking better employment. Table 11.4 gives the occupational distribution of the applicants on the live registers of the employment exchanges.

TABLE 11.4
APPLICANTS ON THE LIVE REGISTERS OF EMPLOYMENT EXCHANGES

Occupational Group	Number on 31-12-71	Percentage to the total
Professional, technical and related workers	3,30,884	6.5
Administrative, executive and managerial workers	7,037	0.1
Clerical, sales and related workers	2,16,803	4.3
Agricultural, dairy and related workers (except agricultural labourers)	18,153	0.4
Miners, quarrymen and related workers	3,995	0.1
Workers in transport and communication occupations	1,22,742	2.4
Craftsmen and production process workers	2,92,933	5.7
Service, sports and recreation workers (except watchmen, chowkidars, sweepers, etc.)	26,684	0.5
Persons without professional or vocational training or previous work experience:		
(i) Middle school standard and above but below matric	7,61,333	14.9
(ii) Matric and above but below graduation	14,95,517	29.3
(iii) Graduates and above	3,05,256	6.0
Unskilled* manual workers	15,18,582	29.8
TOTAL	50,99,919	100.0

*Statistics relating to unskilled manual workers include such categories as labourers, watchmen, sweepers as well as workers below middle school standard without training or experience.

Employment and Unemployment in Rural Areas

The National Sample Survey attempted an assessment of employment and unemployment in rural areas in its 19th round from July 1964 to June 1965. Its report (No. 173) published in 1970 reveals that the working force in rural India constitutes 40.15 per cent of the total population of whom gainfully employed form 38.40 per cent while persons unemployed but available for work constitute 1.75 per cent. A large segment of the working population (77.81 per cent) works for all the seven days in the week. Among males and females separately, the proportion is 78.04 per cent and 77.32 per cent respectively. However, persons working for four days or less and up to one day form 10.24 per cent of the total population. Tables (11.5 and 11.6) give the percentage distribution of rural population by activity, sex and the days at work.

TABLE 11.5
DISTRIBUTION OF POPULATION BY ACTIVITY AND SEX

Activity	Male	Female	All persons
Working population	51.59	24.66	38.40
Persons, not working, but available for work	1.42	2.10	1.75
Persons in labour force	**53.01**	**26.76**	**40.15**
Persons not in labour force	**46.99**	**73.24**	**59.85**
TOTAL	**100.00**	**100.00**	**100.00**

TABLE 11.6
DISTRIBUTION OF WORKING PERSONS BY SEX AND NUMBER OF DAYS WORKED

Number of days worked in a week in all occupations	Male	Female	All persons
1	1.00	1.39	1.13
2	1.99	2.57	2.17
3	2.71	3.17	2.86
4	3.80	4.69	4.08
5	3.72	4.08	3.83
6	8.74	6.78	8.12
7	78.04	77.32	77.81
	100.00	100.00	100.00

Employment in Organized Sector

Employment in the public and private sectors as on 31 March 1971 was as follows:

(*in lakhs*)

TABLE 11.7
EMPLOYMENT IN PUBLIC AND PRIVATE SECTORS

I. Public Sector	
Central Government	27.71
State Governments	41.52
Quasi-Government	19.29
Local Bodies	18.78
TOTAL	107.30
II. Private Sector	
Larger establishments (employing 25 or more workers)	60.35
Smaller establishments (employing 10-24 workers)	7.26
TOTAL	67.61
GRAND TOTAL	174.91

National Sample Survey Organisation

The National Sample Survey (NSS) was instituted in 1950 to conduct sampling enquiries for collecting socio-economic data on a country-wide basis. In 1970, a National Sample Survey Organisation (NSSO) was created in terms of the Government of India Resolution of 5 March 1970 and the Directorate of National Sample Survey was made a part of the National Sample Survey Organisation and was renamed as Field Operations Division (FOD). The NSSO is the central focal agency for collection and independent checking of data required for purposes of central planning and national income estimation. It offers an established source of statistical information on many important subjects, which are useful to the Government as well as research workers in connection with planning and national development. To ensure that the collection, processing and publication of data is free from undue influence, the activities of NSSO are governed by an independent Governing Council consisting of a non-official chairman, four non-official and five official economists and statisticians and four Directors of the functional divisions of NSSO as members, with Chief Executive Officer as its Member-Secretary. The Council has full authority to formulate its short-term and long-term programmes.

The programme of data collection by the NSS is done by rounds of surveys. The period of a round generally coincides with the agricultural year. Twenty-five rounds of the NSS have been carried out so far and the 26th round is in progress. The enquiries taken up in each round have included continuing types of surveys as well as *ad-hoc* surveys on items of current interest. The surveys for estimating area and production of important cereal crops, annual survey of industries and household socio-economic enquiries on expenditure on domestic consumption, housing conditions, population and urban labour force form the major enquiries which have continued from round to round. These provide comparable data over a period of time and enable assessment of prevailing trends and patterns and computation of future demands or requirements. The surveys of current interest are intended to furnish data on subjects of topical importance on which information is required urgently by the Government or other organisations for specific purposes. These include surveys of land holdings, agricultural labour enquiry, small-scale manufacture, number of physically handicapped persons, earnings in professions and liberal arts, number of pucca houses constructed, farming practices, family budget enquiries and numerous other surveys.

A major objective of the NSS has been to provide data needed for filling up gaps in information required for national income estimation by the Central Statistical Organisation. The data on quantity and value of consumption of many items of goods and services, inputs and outputs in industry and data on capital formation, household enterprises, earnings from professions and liberal arts, prices of goods and services, etc., have been important source material in estimating the gross domestic product.

PRICES

The movement of wholesale prices in India over recent years is shown in Table 11.8 given below.

TABLE 11.8
INDEX NUMBER OF WHOLESALE PRICES

(Base : 1961-62=100)

Item	Weight	1967-68	1968-69	1969-70	1970-71	1971-72	April 1972
Food Articles							
Total	(41.3)	207.8	196.9	196.8	203.9	210.3	216.2
Foodgrains	14.8	228.4	201.0	208.2	206.8	214.9	221.7
Liquor and Tobacco	(2.5)	152.0	192.5	195.0	184.9	194.7	216.5
Fuel, Power, Light and Lubricants	(6.1)	142.0	148.6	155.1	161.8	172.0	177.7
Industrial Raw Materials							
Total	(12.1)	156.4	157.3	180.1	197.3	191.0	175.9
Fibres	4.1	127.0	149.3	155.5	178.4	183.7	153.2
Oilseeds	5.2	186.4	165.2	208.5	230.2	208.6	196.3
Minerals	0.4	133.1	135.1	136.3	137.1	141.2	141.5
Others	2.4	145.0	156.9	161.6	166.8	172.6	175.1
Chemicals	(0.7)	157.4	169.1	183.3	188.0	197.0	198.8
Machinery and Transport Equipment	(7.9)	131.9	132.6	136.3	148.0	159.0	165.2
Manufactures							
Total	(29.4)	131.1	134.4	143.5	154.9	167.1	173.3
Intermediate products	5.7	146.7	145.4	160.1	178.7	196.7	205.3
Finished products	23.7	127.3	131.8	139.5	149.2	154.9	165.6
All commodities	(100.0)	167.3	165.4	171.6	181.1	188.4	192.2

Consumer Prices

The all-India working class consumer price index on base 1949=100 has been replaced by a new series of consumer price index numbers for industrial workers on base 1960=100 with effect from August 1968. Table 11.9 shows the consumer price index numbers for industrial workers for the period 1967-68 to 1971-72. Whereas the 1949 series were based on the indices for 27 different centres, the new series are based on indices for 50 centres of industrial activity including some in the plantation and mining sectors. Figures for the new series (for the earlier years) have been obtained from 1949 series by using the linking factor of 1.2154 for the general index. This linking factor has been derived by dividing the average working class consumer price index (1949=100) for the period August 1967—July 1968 by the corresponding average index for the new series.

During 1971-72, the all-India general index showed a rise of 4 points from that of the previous year 1970-71 and the all-India food index also rose by 6 points.

TABLE 11.9
CONSUMER PRICE INDEX NUMBERS FOR INDUSTRIAL WORKERS

(Base: 1960=100)

Year	Bombay	Ahmedabad	Calcutta	Madras*	Kanpur	Delhi	All-India	
							All items	Food
1967-68	162	168	163	151	174	172	175	197
1968-69	167	165	170	150	174	178	174	192
1969-70	175	169	172	160	182	185	177	193
1970-71	182	176	182	170	190	199	186	201
1971-72	—	—	—	—	—	—	192	205

*Figures for the period up to January 1970 have been estimated from the old Consumer Price Index series for Madras city on base July 1935-June 1936=100. From February 1970 and onwards, figures are from the Labour Bureau's New Series on base 1960=100.

NOTE: All-India index figures for the period prior to August 1968 have been obtained from 1949 series by using the following conversion factors:
General Index (conversion factor)—1·2154,
Food Index (conversion factor)—1·1574.

Table 11.10 gives the index number of consumer prices for non-manual employees for the period 1966-67 to 1971-72. The index numbers for some recent months are also given.

TABLE 11.10
CONSUMER PRICE INDEX NUMBERS FOR URBAN NON-MANUAL EMPLOYEES

(Base: 1960=100)

Year/Month	Bombay	Calcutta	Madras	Delhi/ New Delhi	All-India
1966-67	142	139	147	142	146
1967-68	153	152	154	154	159
1968-69	156	156	154	162	161
1969-70	162	162	161	168	167
1970-71	168	170	175	174	174
1971-72	172	174	188	180	180
Jan. 1972	171	172	194	181	182
Feb. 1972	173	172	195	184	183
Mar. 1972	174	174	195	188	184

12 FINANCE

PUBLIC FINANCE

The power to raise and disburse public funds has been divided under the Constitution between the Centre and the States. There are thus more than one budget and more than one public treasury in the country. The sources of revenue for the Centre and the States are, by and large, mutually exclusive, if shareable taxes between the Centre and States are excluded.

The Constitution provides that (i) no tax can be levied or collected except by the authority of law, (ii) no expenditure can be incurred from public funds except in the manner provided in the Constitution, and (iii) the executive authorities must spend public money only in the manner sanctioned by Parliament in the case of the Centre and the State legislature in the case of a State.

All receipts and disbursements of the Union Government are kept under two separate headings, namely, the Consolidated Fund of India and the Public Account. All revenues received, loans raised and money received by the Union Government in repayment of loans go to form the Consolidated Fund of India. No money can be withdrawn from this Fund except under the authority of an Act of Parliament. All other receipts and disbursements, such as, deposits, service funds, remittances, etc., go into the Public Account which is not subject to the vote of Parliament. To meet unforeseen needs, not provided in the Annual Appropriation Act, a Contingency Fund of India has also been established under article 267(i) of the Constitution.

The Constitution also provides for the establishment of a Consolidated Fund and a Public Account for each State. Similarly, the States have Contingency Funds to meet unforeseen needs pending legislative authorisation.

The Railways, the largest public undertaking, have their own funds and accounts and their budget is presented separately to Parliament. The appropriations and disbursements under the railway budget are subject to the same form of parliamentary and audit control as the other appropriations and disbursements.

Sources of Revenue The main sources of Central revenue are customs duties, Union excise duties and the corporation and income taxes (excluding taxes on agricultural income). The revenue from the wealth tax accrues to the Centre. Since 1971-72, the value of agricultural property held by individuals and Hindu undivided families has also been brought under the purview of the Wealth Tax Act. However, the net proceeds of the wealth tax on agricultural property are passed on to the States. The Railways and Posts and Telegraphs also contribute to the general revenues of the Centre out of their net profits.

The main heads of revenue in the States are the taxes and duties levied by the State Governments, the share of taxes levied by the Central Government and grants received from the Centre. Land revenue, sales tax, State excise duties, registration and stamp duties and shares of income tax and Central excise duties constitute more than four-fifths of the tax revenue and more than half of the total revenue receipts of the States. Property taxes and octroi and terminal taxes are the mainstay of local finance.

Transfer of Resources to States

The devolution of resources from the Centre to the States is a salient feature of the system of federal finance in India. Apart from their share of taxes and duties, the State Governments receive statutory and other grants as well as loans for various development schemes and rehabilitation purposes. The total amount of resources transferred to the States during the Second Plan period was more than double of that during the First Plan period. It was nearly double again during the Third Plan. In later years (except in 1967-68 and 1968-69) it has been progressively on the increase as shown in Table 12.1 given below:

TABLE 12.1
RESOURCES TRANSFERRED TO STATES

(*Rs crores*)

Period	Taxes and duties	Grants	Loans*	Total	Aggregate expenditures of State Governments	(4) as percentage of (5)
	(1)	(2)	(3)	(4)	(5)	(6)
First Plan period	352.5	214.8	637.9	1,205.2	3,351.9	36.0
Second Plan period	710.1	700.4	1,037.9	2,448.4	5,845.9	41.9
Third Plan period	1,196.0	1,302.9	2,115.2	4,650.1	10,719.5	43.4
1966-67 (Accounts)	372.6	413.1	638.5	14,24.2	3,063.9	46.5
1967-68 (Accounts)	415.7	479.0	492.5	1,387.2	3,221.0	43.1
1968-69 (Accounts)	491.0	507.2	321.8	1,320.0	3,627.3	36.4
1969-70 (Accounts)	621.7	536.1	398.3	1,556.1	4,039.1	38.5
1970-71 (RE)	755.4	570.1	346.7	1,672.2	4,542.5	36.8
1971-72 (BE)	850.3	835.5	282.6	1,968.4	4,874.8	40.4

* Net of repayments. RE-Revised estimates. BE-Budget estimates.

Source: *Reserve Bank of India Bulletin*, August 1971

Finance Commission

The Fifth Finance Commission, constituted on 29 February 1968, submitted its final report on 31 July 1969 on the States' share of taxes, duties and Central grants for the five-year period 1969-70 to 1973-74. The Sixth Finance Commission has since been appointed with wider terms of reference than the previous ones with a view to have its recommendations well before the Fifth Plan commences.

Budgetary Position

Table 12.2 shows the budgetary position of the Government of India and Table 12.3 shows the consolidated budgetary position of the States and Union Territories for selected years since 1950-51.

Annual Financial Statement or Budget

An estimate of all anticipated revenue and expenditure of the Union Government for the ensuing financial year is laid before Parliament towards the end of February every year*. This is known as the "Annual Financial Statement" or the "Budget" and covers the Central Government's transactions of all kinds in and outside India occurring during the year in which the statement is prepared as well as the ensuing year or the Budget year as it is known.

The presentation of the Annual Financial Statement is followed by a general discussion in both the Houses of Parliament. The

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* The Budget estimates for 1971–72 were presented to the Lok Sabha on 28 May 1971. The delay was on account of the mid-term elections to the Lok Sabha. Similarly Budget estimates for 1972–73 were laid before Parliament on 16 March 1972 on account of the general elections to the State Assemblies.

TABLE 12.2

BUDGETARY POSITION OF THE GOVERNMENT OF INDIA

(Rs crores)

Major head	1950-51 (Accts.)	1955-56 (Accts.)	1960-61 (Accts.)	1965-66 (Accts.)	1968-69 (Accts.)	1969-70 (Accts.)	1970-71 (Revised)	1971-72 (Budget)*
I. *Revenue account*								
A. Revenue (a)	405.86	481.19	877.46	2,320.39	2,759.87	3,027.56	3,340.34	3,502.58 (3,667.15)
B. Expenditure (b)	346.64	440.74	826.21	2,000.63	2,678.91	2,902.39	3,142.20	3,527.13
C. Surplus (+) or deficit (—)	+ 59.22	+ 40.45	+ 51.25	+ 319.76	+ 80.96	+ 125.17	+ 198.14	— 24.55 (+140.02)
II. *Capital account*								
A. Receipts (c) (d)	106.03	288.37	1,155.80	1,705.49	2,078.07	2,640.35	2,583.21	2,577.62
B. Disbursements	184.17	478.34	1,029.33	2,222.42	2,343.75	2,678.60	3,019.35	2,944.21
C. Surplus (+) or deficit (—) ..	— 78.14	— 189.97	+ 126.47	— 516.93	— 265.68	— 38.25	— 436.14	— 366.59
III. *Miscellaneous (net)* (e) ..	+ 15.26	— 10.35	— 60.87	+ 24.39	— 77.67	— 132.44	+ 8.42	— 5.76
IV. *Overall surplus (+) or deficit (—)* (IC+IIC+III)	— 3.66	— 159.87	+ 116.85	— 172.78	— 262.39	— 45.52	— 229.58	— 396.90 (—232.33)
Financed by:								
A. Treasury bills (f) increase (+) or decrease (—) ..	— 16.10	— 123.38	+ 141.31	— 218.32	— 309.93	— 62.44	— 151.00	— 232.00
B. Cash balances increase (+) or decrease (—) ..	+ 12.44	— 36.49	— 24.46	+ 45.54	+ 47.54	+ 16.92	— 78.58	— 0.33
(i) Opening balance ..	149.50	32.23	69.67	— 2.00	64.57	112.11	129.03	50.45
(ii) Closing balance ..	161.94	— 4.26	45.21	43.54	112.11	129.03	50.45	50.12

Note: Accounts are provisional. Budget estimates for 1971-72 relate to final Budget presented to the Lok Sabha. (a) Excluding States' share of excise duties and other taxes. (b) Excluding the payment of States' share of excise duties and additional excise duties. (c) Excluding treasury bills receipts. (d) Excluding *ad hoc* treasury bills of Rs 150 crores in 1959-60, Rs 50 crores each in 1960-61, 1961-62 and 1962-63, Rs 75 crores in 1963-64, Rs 50 crores each in 1964-65, 1965-66 and 1966-67 and Rs 75 crores each in 1967-68, 1968-69, 1969-70 and 1970-71 (RE) funded in December 1959, January 1961, February 1962, December 1962, January 1964, January 1965, February 1966, February 1967, February 1968, February 1969 and January 1970 and January 1971 respectively. (e) Including remittances, transfer of cash between England and India and Reserve Bank deposits. (f) Mostly sold to the Reserve Bank of India.

*At 1970-71 rates of taxation. The effect of additional taxation, adjusted for post-Budgetary concessions, is given in brackets. Details of financing are in respect of overall deficit after taking credit for additional taxation.

TABLE 12.3

CONSOLIDATED BUDGETARY POSITION OF THE STATES AND UNION TERRITORIES

(*Rs crores*)

Major head	1950-51 (Accts.)	1955-56 (Accts.)	1960-61 (Accts.)	1965-66 (Accts.)	1967-68 (Accts.)	1968-69 (Accts.)	1969-70 (Accts.)	1970-71 (Revised)	1971-72 (Budget)
I. *Revenue account*									
Revenue ..	375.8	569.1	1,041.4	1,867.1	2,467.1	2,812.8	3,154.1	3,520.8	3,886.2
Expenditure ..	373.8	614.0	1,016.2	1,901.2	2,468.5	2,792.8	3,220.0	3,569.2	3,820.6
Surplus (+) or deficit (—) ..	+2.0	—44.9	+25.2	—34.1	—1.4	+20.0	—65.9	—48.4	+65.6
II. *Capital account*									
Receipts ..	112.6	323.9	427.8	928.6	790.0	739.3	890.4	780.0	647.7
Disbursements ..	99.2	269.0	452.0	982.5	831.1	859.7	800.5	904.4	911.8
Surplus (+) or deficit (—) ..	+13.4	+54.9	—24.2	—53.9	—41.1	—120.4	+89.9	—124.4	—264.1
III. *Overall surplus* (+) *or deficit* (—) ..	+15.4	+10.0	+1.0	—88.0	—42.5	—100.4	+24.0	—172.8	—198.5
Financed by									
1. Ways and means advances from Reserve Bank of India (net) ..	—4.6	—	+3.2	—14.0	+20.4	—5.5	+4.0	—39.6	+0.9
2. Drawals from cash balances	—10.8	—10.0	—4.2	—74.0	+22.1	+105.9	—28.0	+212.4	+197.6

estimates of expenditure are then placed before the House of the People (Lok Sabha) in the form of "Demands for Grants". Ordinarily, a separate "Demand" is made for each Ministry. All withdrawals of money from the Consolidated Fund are thus authorised by an Appropriation Act passed by Parliament every year. The tax proposals of the Budget are embodied in another bill which is passed as the "Finance Act" of the year.

Estimates of receipts and expenditure are similarly presented by the State Governments to their legislatures before the beginning of the financial year and legislative sanction for expenditure is secured through similar procedure.

Audit

The Constitution requires that the audit authorities, who are independent of the executive, should scrutinise the expenditure of the Central and State Governments and ensure that this is strictly within the limits of their competence. It further enjoins that an account of the expenditure of each Government should be approved by its legislature.

Budget Estimates 1972-73

The Budget estimates for 1972-73, as presented in the Lok Sabha on 16 March 1972, placed expenditure (on revenue account) at Rs 4,661.71 crores including States' share of Union excise duties as compared to Rs 4,582.54 crores (revised) in 1971-72 and revenue at Rs 5,004.51 crores (including proposed additional taxation of Rs 125.92 crores) as compared to Rs 4,556.00 crores (revised) in the previous year, resulting in an anticipated surplus of Rs 342.80 crores.

Direct Taxation

The number of persons paying income tax in 1971-72 was 30,58,795; those paying wealth tax and gift tax numbered 1,93,197 and 55,998 respectively. Net collection from income tax in 1971-72 amounted to Rs 1,002.57 crores (provisional). Net collection from wealth tax amounted to Rs 25.88 crores, from gift tax Rs 3.45 crores and from estate duty Rs 9.11 crores.

Rates of Income Tax

Table 12.4 below gives the comparative incidence of income tax at selected levels of income of individuals at 1972-73 tax rates.

TABLE 12.4
INCIDENCE OF INCOME TAX AT SELECTED LEVELS

Income (Rs)	Tax (including surcharge) (Rs)	Effective rate (%)
5,000	Nil	Nil
6,000	110	0.18
7,500	275	3.67
10,000	550	5.50
12,500	1,018	8.16
15,000	1,485	9.90
20,000	2,875	14.37
25,000	4,600	18.40
40,000	12,650	31.62
50,000	19,550	39.10
60,000	26,450	44.08
70,000	34,500	49.29
80,000	42,550	53.19
90,000	51,175	56.86
1,00,000	59,800	59.80
1,50,000	1,05,800	75.33
2,00 000	1,51,800	75.90
2,50,000	2,00,675	80.27
3,00,000	2,49,550	83.18
5,00,000	4,45,050	89.10
10,00,000	9,33,800	93.38

TABLE 12.5

PUBLIC DEBT OF THE GOVERNMENT OF INDIA

(*Rs crores*)

Particulars	As at the end of			1971-72 (Revised)	1972-73 (Budget)
	1950-51	1960-61	1965-66		
A. Debt raised in India					
(a) *Permanent debt*—					
(i) Current loans	1,438.46	2,555.72	3,417.28	4,701.96	4,916.71
(ii) Compensation bonds	—	—	—	83.80	83.80
(iii) Prize bonds	—	15.63	11.35	.73	.13
(iv) 15-year annuity certificates	—	3.45	3.78	2.43	2.08
(v) Loans in course of repayment	6.49	22.73	33.72	49.66	49.66
TOTAL PERMANENT DEBT	1,444.95	2,597.53	3,466.13	4,838.58	5,052.38
(b) *Floating debt*—					
(i) Treasury bills	358.02	1,106.29	1,611.82	2,622.92	2,997.92
(ii) Special floating loans	212.60	274.18	340.70	703.77	705.90
(iii) Treasury deposit receipts and other floating loans	6.73	—	—	—	—
TOTAL FLOATING DEBT	577.35	1,380.47	1,952.52	3,326.69	3,703.82
TOTAL DEBT RAISED IN INDIA	2,022.30	3,978.00	5,418.65	8,165.27	8,756.20
B. Debt raised outside India	32.03	760.96	2,590.62	6,954.24	7,328.00
TOTAL—PUBLIC DEBT	2,054.33	4,738.96	8,009.27	15,119.51	16,084.20

TABLE 12.6

DEBT POSITION OF STATES

(*Rs crores*)

Particulars	As at the end of			1970-71 (Revised)	1971-72 (Budget)
	1951-52	1965-66	1968-69		
1. *Public debt:*					
(i) Permanent debt (a)	134.02	827.14	1,046.53	1,222.69	1,321.77*
(ii) Floating debt (b)	15.70	189.26	241.49	107.74	108.63
(iii) Loans from Central Government ..	240.48	4,102.87	5,503.63	6,287.92	6,510.17. ✓
(iv) Other debt (c)	—	161.87	201.04	235.27	257.12
II. *Unfunded debt* (d)	58.46	230.64	360.86	515.72	583.61
GRAND TOTAL (I+II)	448.66	5,511.78	7,353.55	8,369.34	8,781.30

Note: Figures are revised.

(a) Represents current and expired loans floated in the market and zamindari/jagirdari abolition bonds.

(b) Represents mainly ways and means advances from the Reserve Bank of India.

(c) Includes loans from the National Agricultural Credit (Long-term operations) Fund of RBI, National Co-operative Development Corporation, Khadi and Village Industries Commission, Employees' State Insurance Corporation, Central Warehousing Corporation of India, State Bank of India, etc.

(d) Includes State provident funds, postal insurance and life annuity funds, family pension fund, staff benefit fund and special loans consisting generally of endowments for specific purposes of a religious and charitable nature.

* Figures of permanent debt for 1971-72 include actuals in respect of market borrowings.

Taxation Enquiry Committee

The Direct Taxes Enquiry Committee appointed under the chairmanship of Justice K.N. Wanchoo submitted its report in December 1971. The Committee had been asked to study the problems of black money, tax evasion, tax avoidance and tax arrears and it has made recommendations on each of them. The recommendations are being examined by the Government.

PUBLIC DEBT

The outstanding public debt of the Government of India was estimated at Rs 14,043.21 crores at the end of 1970-71 and Rs 15,119.51 crores at the end of 1971-72. Table 12.5 gives an analysis of the public debt outstanding at the end of selected years since 1950-51.

Table 12.6 shows the debt position of the State Governments.

MONEY SUPPLY AND CURRENCY

Money supply comprises currency with the public and such of the deposit money with the banking system, including the Reserve Bank of India, as is withdrawable 'On demand'. The total supply of money with the public thus stood at Rs 7,704.3 crores at the end of 1971, of which currency with the public accounted for Rs 4,566.8 crores and deposit money Rs 3,137.5 crores. In 1971, money supply registered an increase of Rs 909.9 crores as compared with a rise of Rs 758.4 crores in 1970. Component-wise, both currency with the public and deposit money recorded substantial increases of Rs 396.8 crores and Rs 513.1 crores respectively during 1971 as compared with the rise of Rs 406.4 crores and Rs 352.1 crores respectively in 1970. The trends in money supply and its components since 1961 are indicated in Table 12.7 below :

TABLE 12.7
MONEY SUPPLY WITH THE PUBLIC

(Rs crores)

End of December	Currency with the public		Deposit money with the public		Money supply with the public	
	Amount	Annual variation	Amount	Annual variation	Amount	Annual variation
1961	2,059.5	+ 92.1	774.7	+ 36.9	2,834.2	+129.0
1962	2,246.3	+186.8	867.6	+ 92.9	3,113.9	+279.7
1963	2,475.8	+229.5	1,065.4	+197.8	3,541.2	+427.3
1964	2,661.1	+185.3	1,244.9	+179.5	3,906.0	+364.8
1965	2,865.0	+203.9	1,435.6	+190.7	4,300.6	+394.6
1966	3,008.1	+143.1	1,673.1	+237.5	4,681.2	+380.6
1967	3,209.8	+201.7	1,892.0	+218.9	5,101.8	+420.6
1968	3,372.2	+162.4	2,016.7	+124.7	5,389.0	+287.0
1969	3,763.6	+391.4	2,272.3	+255.6	6,036.0	+647.0
1970*	4,170.0	+406.4	2,624.4	+352.1	6,794.4	+758.4
1971*	4,566.8	+396.8	3,137.5	+513.1	7,704.3	+909.9

* Provisional.

The rise in money supply during 1971 was mainly due to increase in net bank credit to the Government sector. Net bank credit to the Government sector increased by Rs 1,136 crores during the year as compared to a rise of Rs 252 crores in 1970. Net bank credit to the commercial sector contracted by Rs.125 crores compared to an expansion of Rs 507 crores in 1970. Net foreign exchange assets of the banking sector also contracted by Rs 22 crores in 1971 as compared to an expansion of Rs 123 crores in 1970.

The other factor which contributed to the rise in money supply was an increase of Rs 16 crores in Government's net currency liabilities to the public but this increase was smaller than that of Rs 22 crores in the preceding year.

Currency

During 1971, currency in circulation* registered an expansion of Rs 431.4 crores (to Rs 4,765.96 crores) as compared with Rs 425.68 crores in the preceding year. Between 1961 and 1971, currency in circulation expanded by Rs 2,645.4 crores or by 124.7 per cent.

Of the expansion of Rs 431.4 crores in currency in circulation during 1971, bank notes accounted for an increase of Rs 414.0 crores, the expansion in 1970 under this head being Rs 404.7 crores. Rupee coins in circulation (inclusive of one rupee notes) were higher by Rs 15.8 crores as compared with an increase of Rs 12.3 crores in the preceding year. Circulation of small coins rose by Rs 1.6 crores which was higher than that registered in 1970 at Rs 8.7 crores. At the end of 1971, bank notes, rupee coins (including one rupee notes) and small coins in circulation stood at Rs 4,376.4 crores, Rs 255.9 crores and Rs 133.6 crores respectively.

Commemorative Coins

To mark the 25th Anniversary of the UN Food and Agriculture Organisation (FAO), two new coins of Rs 10 and 20 paise were issued on 16 October 1970.

BANKING

The year 1971 witnessed a significant rise in commercial bank deposits, a further notable expansion of branch network, and sustained efforts by banks to meet the increasing credit requirements of the different sectors of the economy generally and the neglected/weaker sections in particular. The aggregate deposits rose by 21.8 per cent during 1971, against 16.5 per cent in 1970, the actual increase being Rs 1,237.6 crores, against Rs 808.3 crores in the previous year. At the end of 1971, the deposits stood at Rs 6,922.4 crores, against Rs 5,684.8 crores a year before. About 1,800 more offices of commercial banks were opened in 1971, of which as many as 1,123 were in rural areas. The number of offices at the end of 1971 was 12,985. The order of credit expansion during the year at Rs 594.5 crores (+13.4 per cent) was lower than the previous year's Rs 836 crores (+23.1 per cent).

The comfortable resources position of banks arising from higher deposit growth and lower credit expansion was reflected in reduced recourse to Reserve Bank credit and larger investments by banks in Government and other approved securities. Borrowings from the Reserve Bank at the close of 1971 were Rs 171.2 crores as against Rs 302.2 crores at the end of 1970. Bank investments in Government and other approved securities rose by Rs 426.6 crores in 1971, as compared with Rs 213.9 crores in 1970. Cash and balances with the Reserve Bank also showed a larger rise of Rs 80.4 crores in 1971, as compared with the rise of Rs 40.2 crores in 1970.

Data relating to some of the important items of assets and liabilities of the scheduled commercial banks are given in Table 12.8.

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* Figures are inclusive of notes, rupee coins (including one rupee notes) and small coins held by banks and at treasuries but exclusive of Rs 43 crores of Indian notes received from Pakistan and awaiting cancellation.

TABLE 12. 8
Scheduled Commercial Banks—Assets and Liabilities

(*Rs crores*)

Items	Outstanding at the end of		Variation during	
	1970	1971	1970	1971
1. Bank Credit	4,452.5	5,047.0	+836.6	+594.5
2. Investments in				
(a) Government securities ..	1,354.9	1,639.6	+122.1	+293.7
(b) Other approved securities ..	376.9	509.8	+ 91.8	+132.9
3. Cash and balances with RBI ..	357.4	437.8	+ 40.2	+ 80.4
4. Aggregate deposits	5,684.8	6,922.4	+808.3	+1,237.6
(a) demand	2,481.0	2,979.1	+350.6	+498.1
(b) time	3,203.8	3,943.3	+457.7	+739.5
5. Borrowings from RBI ..	302.2	171.2	+210.3	−131.0

The year 1971 opened with a measure of credit restraint occasioned by the large seasonal credit expansion financed to a significant degree by the Reserve Bank credit. In the context of the persistent inflationary pressures in the economy resulting from the increase in money supply and rise in prices, the Reserve Bank raised the bank rate from 5 per cent to 6 per cent with effect from 9 January 1971. The minimum net liquidity ratio (NLR) for the purpose of determining the penal rate of interest on banks' excess borrowings from the Reserve Bank was also raised by 1 per cent to 34 per cent effective from 29 January 1971. Banks were advised to ensure that while adjusting the rate of interest on their advances, the increase in rates was only about one per cent. The maximum penal rate of interest on excess borrowings was stipulated in February 1971 at 15 per cent in respect of banks having NLR below 26 per cent. With a view to bringing about a realignment of interest rate structure consistent with the overall policy, the ceiling on the interest payable on various categories of deposits was raised by 1/4 to 3/4 per cent with effect from 11 January 1971. The maximum rate of interest chargeable by banks on export credit was raised from 6 per cent to 7 per cent in April 1971. The rate for export credit on deferred payment terms was continued at 6 per cent.

The need for continued credit restraint during the remaining part of the busy season was emphasised by the Reserve Bank in February 1971. The Bank noted that the increase in bank rate and the associated steps that were taken early in January had started making an impact and the borrowings of commercial banks from the Reserve Bank had shown some reduction. However, it was stressed that the situation was not one which could be viewed with complacency and that there was need for continued credit restraint and greater efforts towards deposit mobilisation.

The Reserve Bank indicated to the banks that while it would continue to provide the same refinance facilities, discretionary accommodation at the bank rate would be provided only in exceptional cases after taking into account factors, such as the bank's efforts towards deposit mobilisation, purposeful credit planning, its commitments towards financing of food procurement operations and the problem faced by banks in regard to their operations in backward areas.

Credit for food procurement operations, which had mainly caused a contra-seasonal expansion of credit in the 1970 slack season, was also prominent in the 1971 slack season. However, credit expansion in the 1971 slack season was lower at Rs 164 crores, against Rs 226 crores in the previous slack season. The rise in aggregate deposits during the 1971 slack season was Rs 588 crores or 9.8 per cent, as compared with the rise of Rs 449 crores or 8.7 per cent in the 1970 slack season.

The improved resources position of banks during the 1971 slack season enabled them to step up their investments in Government and other approved securities and reduce their borrowings from the Reserve Bank. Investments of the scheduled commercial banks in Government and other approved securities increased substantially by Rs 247 crores, as compared with the rise of Rs 188 crores in the 1970 slack season. Borrowings of the scheduled commercial banks from the Reserve Bank, which had touched a record level of Rs 443 crores in March 1971, declined to Rs 191 crores at the close of the busy season ended April 1971. In the slack season, borrowings declined drastically to Rs 19 crores at the end of October 1971.

In the light of the anticipated demand for credit in the busy season of 1971-72, the Reserve Bank advised the banks in September 1971 to conserve their resources arising out of the deposit accretion, for use in the busy season, by reducing their indebtedness to the Reserve Bank and or by stepping up their investments in Government and other approved securities and, at the same time, continue to provide assistance with their available resources for achieving increase in industrial production and meeting the requirements of financing food procurement, priority sectors and defence-oriented production. In November 1971, the Reserve Bank advised the banks to ensure that their borrowings from the Bank at the end of April 1972 did not exceed the level as at the end of April 1971.

The new bill rediscounting scheme was introduced from 1 November 1970. The scheme aims at promoting the use of the bill of exchange as an instrument of credit and thus reduces access to bank credit at two points for the same transaction against book debts or receivables to the seller and against the security of the goods sold to the purchaser. The widespread use of bills is also calculated to even out liquidity pressures in the banking system.

The basic structure of the Reserve Bank's refinance facilities for food procurement and export advances was continued intact throughout 1971 with minor modifications from time to time.

The Reserve Bank also reviewed the selective credit controls in the light of supply position and prices of sensitive commodities and effected changes in margins and levels of credit from time to time. The minimum margins on advances which were prevailing in December 1971 varied from 25 to 50 per cent for foodgrains, 25 to 75 per cent for oilseeds, vegetable oils and vanaspati, 20 to 70 per cent for cotton and *kapas*, and 40 to 65 per cent for sugar, *gur* and *khandsari*, depending on the categories of borrowers, location, marketing period of the commodities, etc.

In December 1971, the Reserve Bank organised a consortium arrangement for the extension of bank credit for food procurement operations, which constitutes the largest single demand on the deployable resources of banks. Under this arrangement, the State Bank of India, as consortium leader, handles all requests for procurement credit. Bills drawn by the procurement agency on the State Bank are re-discounted with the participating banks, in accordance with informal and flexible limits settled for each bank taking into consideration its resources position and the overall requirement for procurement operations.

Credit Guarantee Corporation of India

Various measures have been taken from time to time to help banks in extending credit to borrowers belonging to the priority sectors and other weaker sections of the community. In this context, the Reserve Bank of India promoted the Credit Guarantee Corporation of India Ltd., with the object of providing guarantees to banks and other financial institutions for their lending to the smaller borrowers in these sectors. The Corporation was registered as a public limited company under the Companies Act, 1956, on 14 January 1971. Out of its paid-up capital of Rs 2 crores, 60 per cent has been subscribed by the Reserve Bank of India and the rest by the scheduled commercial banks.

Under three separate schemes. the Corporation provides guarantees for loans and other credit facilities extended by (i) scheduled commercial banks to transport operators, dealers in fertilisers and mineral oils and other traders, professional and self-employed persons, owners of business enterprises, and farmers and agriculturists, (ii) financial corporations to transport operators, small hoteliers, business enterprises engaged in the generation or distribution of electricity or any other form of power, or in the development or management of any contiguous area of land as an industrial estate, and (iii) scheduled commercial banks all over the country and State and Central Co-operative Banks in certain areas to service co-operative societies assisting artisans and workers engaged in any form of industrial activity.

The Corporation's guarantee is available automatically and in bulk in respect of all eligible credit facilities, without any application having to be made either by the credit institution or by the individual borrowers to the Corporation. A guarantee fee of one-half of one per cent per annum is charged on the actual amounts advanced and is payable quarterly. If any debt turns out to be irrecoverable, the Corporation will bear 75 per cent of the loss, subject to the ceilings specified in respect of certain categories of borrowers.

The total loans and other credit facilities covered by the guarantee of the Credit Guarantee Corporation of India amounted to Rs 20.34 crores at the end of September 1971. No guarantees were invoked during 1971. The entire guarantee fee of Rs 4.05 lakhs received by the Corporation was set apart as a reserve for unexpired guarantee risks, while the surplus of Rs 4,298 after writing off preliminary expenses (Rs 87,458) and providing for taxation (Rs 6.32 lakhs) was transferred to the General Reserve.

Credit Schemes for Employment Potential

The Reserve Bank of India set up a Committee in October 1970 under the chairmanship of Shri V. D. Thakkar to review the special credit schemes of various banks with particular reference to the credit requirements of various categories of self-employed persons. The recommendations of the Committee have been accepted in principle by the Reserve Bank and the Government of India. The Reserve Bank, in March 1971, issued a circular to all commercial banks giving a set of broad guidelines based on the recommendations of the Committee. Banks in the public sector have been asked to make special endeavours to finance schemes with a view to generating more employment in the areas of their operation. Special credit schemes designed to generate increased self-employment have been introduced by all leading banks.

Deposit Insurance Corporation

The Deposit Insurance Corporation was established on 1 January 1962 by an Act of Parliament with the object of giving a measure of protection to depositors, particularly small depositors, from the risk of loss of their deposits in the event of a bank's inability to meet its liabilites. Every commercial bank functioning in India and every eligible co-operative bank functioning in any of the States and Union Territories, to which the Deposit Insurance Scheme has been extended by the Central Government, is registered as an insured bank with the Corporation and all its depositors get the protection afforded by the Corporation. At the end of 1971, there were 81 insured commercial banks and 384 insured co-operative banks.

The insured limit, which was initially fixed at Rs 1,500 in January 1962 was raised to Rs 5,000 in January 1968 and further to Rs 10,000 with effect from 1 April 1970. The limit is in respect of the total amount held by a depositor in all his accounts in the same right and capacity with a particular bank (including accounts at any of its branches in India). At the end of September 1971, 96.3 per cent of the accounts and 62.1 per cent of the total assessable deposits were fully protected.

Insured banks are required to pay to the Corporation premium on their assessable deposits. The rate of premium, which was originally fixed at five paise per annum for every hundred rupees of the assessable deposits, was reduced to four paise with effect from 1 October 1971. The premium is collected quarterly from the insured banks.

The Corporation has a share capital of Rs 1.5 crores which is entirely subscribed by the Reserve Bank of India. The share capital (and the surplus income from investments) is invested by the Corporation in Government securities.

A Deposit Insurance Fund has been built up from the insurance premia and the interest received from the relative investments, after providing for insurance losses and depreciation in the value of the investments. The balance in the Fund as at the end of 1971 stood at Rs 20.97 crores and formed 0.5 per cent of the insured deposits.

The net amount of claims met by the Corporation till the end of 1971 was Rs 75.02 lakhs.

Nationalisation of Major Banks and Their Performance

On 19 July 1969, the President issued an ordinance nationalising 14 major commercial banks with deposits of not less than Rs 50 crores each. A bill to replace this ordinance, *viz*., the Banking Companies (Acquisition and Transfer of Undertakings) Bill, 1969 was passed by the Lok Sabha on 4 August 1969 and by the Rajya Sabha on 8 August 1969. The President gave his assent on 9 August 1969. The Act was, however, declared invalid by the Supreme Court on 10 February 1970.

Subsequently, the President promulgated a fresh ordinance on 14 February 1970, re-nationalising the same 14 major commercial banks with retrospective effect from 19 July 1969. The Banking Companies (Acquisition and Transfer of Undertakings) Bill, to replace the ordinance promulgated on 14 February 1970 was passed by the Lok Sabha on 24 March 1970, and the Rajya Sabha on 26 March 1970. The Bill received the President's assent on 31 March 1970.

On 19 July 1969, the 14 nationalised banks had deposits aggregating Rs 2,626.2 crores, accounting for 56 per cent of the total deposits of the banking system in the country and 4,168 offices comprising about 50 per cent of the bank offices. The State Bank of India and its seven subsidiaries, *viz*., the State Bank of Bikaner and Jaipur, and the State Banks of Hyderabad, Mysore, Patiala, Saurashtra, Indore and Travancore, which were already in the public sector, accounted for about 27 per cent of the total deposits and nearly 30 per cent of the bank offices. With the acquisition of the undertakings of the 14 major Indian banks, the public sector in banking came to account for about 83 per cent of the total deposits and about 80 per cent of the number of bank branches in the country.

In order to make bank services available to a wider section of the people, the public sector banks have, apart from setting up their offices in unbanked centres in larger numbers than before, made special efforts to extend credit to hitherto neglected sectors. During December 1970 to December 1971, advances by these banks to agriculture, small-scale industry, road and water transport operators, retail trade, small business, self-employed persons and for purposes of education rose to Rs 969.44 crores from Rs 887 crores, showing an increase of Rs 82.44 crores. The share of these sectors in the total advances of public sector banks at the end of December 1971 stood at 23 per cent, as against 19.5 per cent in December 1969. The number of accounts of farmers in these banks increased from 8.04 lakhs in December 1970 to over 9.06 lakhs in December 1971 and the number of accounts in respect of advances to the other neglected sectors from 3.45 lakhs to 3.53 lakhs. Table 12.9 shows the advances by public sector banks to agriculture and other sectors at the end of December 1970 and December 1971.

Lead Bank Scheme and Branch Expansion

Based on the recommendations of the Gadgil Study Group and the Nariman Committee, the Reserve Bank formulated, towards the close of 1969, the Lead Bank Scheme with a view to giving a concrete shape to the 'area approach' to development. To enable banks to assume the role of leadership in an effective and systematic manner, all the districts of the Indian Union, except the metropolitan areas of Greater Bombay, Calcutta and Madras and the Union Territories of Chandigarh, Delhi and Goa, were allocated among the public sector banks and a few of the private sector banks.

Each bank is expected to devote intensive attention to the districts allocated to it and provide leadership in initiating or quickening their process of development. To fulfil the immediate task of acquiring a basic knowledge of the districts allocated to them and enabling them to formulate suitable schemes of action, the banks were required to conduct a quick and impressionistic survey of the resources and potential of the district and also identify centres/areas in the district that are in need of banking services and offer potential for development.

In spreading the network of branches and in the more comprehensive task of bringing about the economic progress of the area, it is not the intention that the respective lead banks will have a monopoly of banking business in their districts. Rather, each lead bank is required to act as a consortium leader who would organise and obtain the cooperation of other banks as well as other financial institutions and maintain liaison with district/State authorities. To ensure functional coordination between the financial institutions, the lead banks are to take the initiative for the formation of a district consultative committee of banks and other financial institutions to review and assess performances and indicate future lines of action.

Quick and impressionistic surveys had been completed by banks in respect of over 250 out of 335 districts up to the end of May 1972. District-level consultative committees had also been set up in a number

TABLE 12. 9

ADVANCES OF PUBLIC SECTOR BANKS TO AGRICULTURE AND OTHER NEGLECTED SECTORS

	Number of Borrowal Accounts			Amount Outstanding at the end of (*Rs lakhs*)		
	December 1970	December 1971	Variation	December 1970	December 1971	Variation
I. Agriculture						
(a) Direct finance (excluding plantations) ..	7,85,120	8,86,059	+1,00,939	20,182.9 (5.4)	22,870.0 (5.4)	+2,687.1
(b) Indirect finance	19,337	20,856	+1,519	14,222.3 (3.8)	11,976.0 (2.8)	—2,246.3
II. Small-scale industry	1,34,874	1,11,353	—23,521	42,004.1 (11.3)	48,281.0 (11.43)	+6,276.9
III. Road transport operators ..	19,334	27,281	+7,947	3,709.3 (1.0)	4,561.4 (1.1)	+852.1
IV. Retail trade & small business ..	1,45,814	1,56,411	+10,597	7,444.6 (2.0)	7,806.0 (1.8)	+361.4
V. Professional & self-employed persons	37,990	51,186	+13,196	856.9 (0.2)	1,040.0 (0.2)	+183.1
VI. Education	7,118	7,589	+471	347.3 (0.1)	415.0 (0.1)	+67.7
TOTAL (I TO VI) ..	11,49,587	12,60,735	+1,11,148	88,767.4 (23.8)	96,949.4 (22.83)	+8,182.0
TOTAL CREDIT OF PUBLIC SECTOR BANKS ..				3,72,308.0 (100.0)	4,22,130.0 (100.0)	+49,822.0

Note: Figures in brackets indicate percentage of share of each sector to the total advances of the public sector banks.

of districts and banks were making efforts in the conduct of depth studies to evolve schemes of lending to specific sectors in their lead districts.

To set the pattern of mutual cooperation among banks and illustrate the manner of allocation of identified centres, the Reserve Bank convened region-wise meetings of representatives of banks to coordinate the allotment of unbanked and underbanked centres identified by the surveys. Six such meetings were convened by the Reserve Bank and 724 identified centres were allotted to various commercial banks by the end of December 1971. The lead banks concerned have been holding meetings of commercial banks for allotment of centres identified in their respective districts since then.

The pace of opening new offices by commercial banks received great impetus after the nationalisation of 14 major Indian banks in July 1969. Between 19 July 1969 and 31 December 1971, 4,674 new offices were opened by commercial banks, raising the total number of offices from 8,321 to 12,985. Of these, 3,997 were opened by the public sector banks, of which nearly two-thirds were located in the rural areas. On an average five new bank offices were opened every day during this period. As a result of an increase in the number of branches, the average number of persons served by a commercial bank office has declined. On an average, one commercial bank office served about 42,000 persons at the end of December 1971, as against an average of 65,000 persons served in July 1969 and 92,000 served in 1960.

The population norm per bank office in the case of metropolitan towns and such urban centres as have high deposit potential has been revised by the Reserve Bank from 10,000 to 5,000. This relaxation has taken into account the need for mobilising deposits, the potential for which appeared good in the metropolitan centres according to a study of the Reserve Bank. In the context of the emphasis given to increasing involvement of banks in sectors essentially rural in character, such as agriculture and village industries, the need for mobilising deposit resources has gained urgency. In the light of these considerations, the Reserve Bank convened meetings of bankers in Bombay, Calcutta, New Delhi, Hyderabad and Bangalore to work out the branch expansion programme in these centres. The allotment of branches made at these meetings would, however, be subject to the entitlement of banks to open offices in urban centres and metropolitan and port towns which has been linked to their performance in branch expansion in rural/semi-urban centres.

In order to ensure that the branch expansion of the commercial banks takes place in a planned and coordinated manner, it was considered necessary that banks should have a perspective target of branch expansion for a three-year period, *i.e.*, from 1972 to 1974. This would enable the Reserve Bank to regulate branch expansion in a phased manner and also help banks to coordinate their man-power planning. Based on their past performance, it is expected that the banks will be able to open about 5,000 offices during these years. The banks which have been designated Lead Banks have also been advised to keep in view, while drawing their programme, their responsibility in their lead districts and the need for giving priority to the relatively underdeveloped /underbanked States.

Banking Commission

The Banking Commission with Shri R.G. Saraiya as Chairman was appointed by the Government of India on 3 February 1969 to undertake a comprehensive review of the existing structure and organisation of the commercial banking system. The Commission submitted its report on 9 February 1972. The Commission reviewed the functioning of commercial and co-operative banks, non-banking financial intermediaries and indigenous banking agencies in the country and suggested a structural re-organisation of the commercial banking system, stressing in particular the need for reshaping the banking arrangements in the rural sectors.

The Commission has recommended the reorganisation of the 22 public sector banks into two or three all-India banks and six other banks each specialising in developing banking services in a broad region. In its view, the reorganisation should be such that it allows a fair proportion of well-developed areas and backward areas amongst constituent units. In other words, there should be some measure of equalisation of both the nature and the volume of banking business amongst the different units. As far as possible, the units should be compact ones operating over areas that are geographically contiguous and the customer should have a choice of at least two or three banks particularly in large centres of population. The Commission feels that there should be a time-bound programme for mergers and amalgamations of the Indian commercial banks in the private sector which have not shown good performance.

As for banking in rural areas, the Commission has suggested the establishment of rural banks either by promoting sound primary agricultural credit societies as subsidiaries of commercial banks or by the commercial banks themselves setting up their own subsidiaries. It has also recommended the strengthening of the primary credit societies wherever they were working on sound lines so that they could provide wide-ranging banking service.

The Commission has proposed stringent regulatory controls over the non-banking financial intermediaries with a view to facilitating effective implementation of monetary policy, creating conditions for their growth and safeguarding the interests of the depositors. It has also made detailed recommendations for linking indigenous banking agencies with the organised banking system and for improving and modernising the operational procedures and management policies of the banks. The Commission has also indicated the lines along which banking laws could be streamlined and recommended a comprehensive banking code to govern commercial banks and non-banking financial intermediaries.

The recommendations of the Commission are being examined by the Government and the Reserve Bank of India.

CORPORATE SECTOR

The number of joint stock companies incorporated under the Companies Act, 1956 and at work in India on 31 March 1972 was 33,816. The total paid-up capital of the companies limited by shares, which numbered 32,575, amounted to Rs 4,407 crores. Of these, 6,685 were public limited and 25,890 were private limited companies having a paid-up capital of Rs 1,945.9 crores and Rs 2,461.1 crores respectively. There were 1,241 companies registered under section 25 as associations not for profit (registered mostly as companies limited by guarantee). Table 12.10 shows the number and paid-up capital of the companies at work at the end of March in the years 1951, 1956, 1961 and 1966 to 1972.

TABLE 12.10
COMPANIES AT WORK

As on 31 March	Companies with share capital						Associations not for profit (registered mostly as companies limited by guarantee)
	Public		Private		Total		
	No.	Paid-up capital (Rs crores)	No.	Paid-up capital (Rs crores)	No.	Paid-up capital (Rs crores)	No.
1951	12,568	566.5	15,964	208.9	28,532	775.4	1,213
1956	9,575	690.4	20,299	333.8	29,874	1,024.2	1,394
1961	6,702	948.2	19,447	870.3	26,149	1,818.5	1,169
1966	6,392	1,465.7	20,286	1,579.2	26,678	3,044.9	1,161
1967	6,543	1,669.5	20,484	1,731.8	27,027	3,401.3	1,152
1968	6,569	1,783.4	20,775	1,890.4	27,344	3,673.8	1,160
1969	6,535	1,833.9	21,438	2,026.4	27,973	3,860.3	1,188
1970	6,517	1,870.8	22,443	2,107.5	28,960	3,978.3	1,206
1971	6,534	1,908.3	23,878	2,393.1	30,412	4,301.4	1,220
1972	6,685	1,945.9	25,890	2,461.1	32,575	4,407.0	1,241

Note: Figures for 1968 to 1972 are provisional.

Table 12.11 shows the region/State-wise distribution of companies at work on the basis of the location of their registered offices and of the new companies registered during April 1971 to March 1972. During this period, 2,524 companies limited by shares, with an authorised capital of Rs 525.1 crores, were registered under the Companies Act, 1956. Of these, 198 companies were public limited and 2,326 were private limited having an authorised capital of Rs 216.6 crores and Rs 308.5 crores respectively.

Capital Issues and Project Costs

During 1971, 46 non-Government non-financial public limited companies issued capital through prospectuses amouting to Rs 29.4 crores. Of this, Rs 25.1 crores was issued in the form of share capital (Rs 19.6 crores as equity and Rs 5.5 crores as preference shares) and Rs 4.3 crores as debentures. As compared to this, 53 companies had issued capital amounting to Rs 42.1 crores, Rs 36.1 crores in the form of shares and Rs 6.0 crores as debentures, during 1970. There was, thus, a fall of Rs 12.7 crores in the amount of capital issued during 1971. Out of the total capital issued during 1971, Rs 24.1 crores (82.0 per cent) was offered to the public, of which Rs 21.0 crores (87 per cent) was underwritten. The total project cost of these companies issuing capital during the year was estimated to be about Rs 107.3 crores as compared to Rs 152.1 crores in the preceding year.

Capital Raised

The amount of capital raised by public limited companies during 1971-72 was Rs 42.2 crores and by private limited companies Rs 70.4 crores as compared to Rs 57.6 crores and Rs 277.1 crores respectively by public and private limited companies in the previous year.

Companies which Ceased to Work

The number of companies which went into liquidation or were struck off under section 247 (5) of the Companies Act, 1913 or under section 560(5) of the Companies Act, 1956 or otherwise became defunct or ceased to work during 1972 was 361. Comparative figures for earlier years were: 1965-66—915, 1966-67—802, 1967-68—627, 1968-69—588, 1969-70—523 and 1971—472.

TABLE 12.11
REGION/STATE-WISE DISTRIBUTION OF COMPANIES AT WORK

Region/State	Companies at work with their paid-up capital as on 31 March 1972		Companies registered during April 1971–March 1972	
	No.	Paid-up capital (Rs crores)	No.	Authorised capital (Rs crores)
Eastern Region				
Assam	439	52.6	34	13.8
Bihar	456	823.4	41	61.2
Orissa	244	48.5	20	1.7
West Bengal	9,340	665.5	337	68.4
Manipur	7	0.1	1	—
Tripura	7	0.2	—	—
Nagaland	3	—	1	8.0
TOTAL	10,496	1,590.3	434	153.1
Northern Region				
Haryana	281	9.7	32	3.8
Punjab	823	14.9	84	4.5
Rajasthan	491	56.9	56	8.8
Uttar Pradesh	1,391	82.9	123	44.0
Chandigarh	89	10.9	11	0.9
Delhi	3,512	732.3	428	57.7
Jammu & Kashmir	101	13.8	6	0.1
Himachal Pradesh	59	3.6	10	0.6
TOTAL	6,747	925.0	750	120.4
Southern Region				
Andhra Pradesh	813	86.8	85	11.4
Kerala	1,105	95.3	75	62.7
Tamil Nadu	3,103	342.0	168	49.6
Mysore	1,115	168.6	150	31.9
Pondicherry	62	2.2	4	0.7
TOTAL	6,198	694.9	482	156.3
Western Region				
Gujarat	1,538	180.5	186	21.0
Madhya Pradesh	414	108.0	30	2.8
Maharashtra	7,050	893.9	617	64.6
Goa	132	14.4	25	6.9
TOTAL	9,134	1,196.8	858	95.3
GRAND TOTAL	32,575	4,407.0	2,524	525.1

Government Companies

Table 12.12 gives the number and paid-up capital of Government companies at work at the end of March for the years 1961 to 1972.

TABLE 12.12
GOVERNMENT COMPANIES AT WORK

As on 31 March	Public		Private		TOTAL	
	No.	Paid-up capital (Rs crores)	No.	Paid-up capital (Rs crores)	No.	Paid-up capital (Rs crores)
1961	39	33.0	103	514.0	142	547.0
1962	41	23.5	113	606.2	154	629.7
1963	42	27.4	118	758.8	160	786.2
1964	50	39.4	126	921.4	176	960.8
1965	54	51.5	129	1,062.8	183	1,114.3
1966	63	58.4	149	1,179.5	212	1,237.9
1967	65	77.1	167	1,314.4	232	1,391.5
1968	72	99.1	169	1,460.2	241	1,559.3
1969	81	121.9	178	1,593.0	259	1,714.9
1970	81	130.2	201	1,660.4	282	1,790.6
1971	91	133.2	223	1,931.3	314	2,064.5
1972*	108	145.2	240	1,977.7	348	2,122.9

* Figures are provisional.

Table 12.13 shows the ownership pattern of Government companies at work as on 31 March 1971. Out of the total paid-up capital of Rs 2,064.5 crores, Rs 1,712.5 crores, accounting for 82.9 per cent, was held by the Central Government.

TABLE 12.13
OWNERSHIP PATTERN OF GOVERNMENT COMPANIES

Type of companies	No.	Paid-up capital (Rs crores)	Percentage of total capital
1. Central Government	66	1,712.5	82.9
2. Central and State Governments	20	106.1	5.1
3. Central Government & private interests	8	30.8	1.5
4. Central and State Governments and public interests	10	51.5	2.6
5. State Governments	115	131.1	6.3
6. State Governments and private interests	63	32.5	1.6
	282	2,064.5	100.0
	32*	—	—
TOTAL	314	2,064.5	100.0

*The ownership pattern of 32 companies registered during 1970-71 is not available.

Foreign Companies

On 31 March 1972, there were 541 foreign companies in India as defined under section 591 of the Companies Act, 1956 (*i.e.*, joint stock companies incorporated outside India but having a place of business in this country). The distribution of these companies according to their country of origin was—UK: 325; USA: 89; Japan: 17; West Germany and Pakistan: 12 each; Switzerland: 10; France and Hongkong: 8 each; Canada: 7; Netherlands: 6; Italy and Sweden: 5 each; Australia, Belgium, Yugoslavia, Uganda and New Zealand: 3 each; Panama, Bahama Island, Thailand, Singapore, Lebanon and Nepal: 2 each; Ceylon, Kenya, Kuwait, Liberia, Luxembourg, Philippines, Tanzania, Iran, Aden and Greece: 1 each.

INSURANCE

Since 1 September 1956, when the Life Insurance Corporation of India was established, life insurance business in India is transacted by the Corporation and, in a restricted sphere, by the Posts and Telegraphs Department of the Government of India and by certain State Governments.

Fire, marine and miscellaneous classes of insurance business, which was being transacted both by the Indian and foreign insurance companies operating in India, was also taken over by the Government of India on 13 May 1971. The Life Insurance Corporation and certain State Governments, however, continued to transact such business.

State-run Insurance Schemes

The Governments of Andhra Pradesh, Jammu and Kashmir, Kerala, Madhya Pradesh, Mysore, Rajasthan and Uttar Pradesh are transacting life insurance business, the benefits of which are restricted to their employees. The Governments of Gujarat, Maharashtra and Kerala have an insurance fund for the insurance of all types of Government property in their commercial and industrial undertakings. The Government of Kerala is transacting fire and miscellaneous (motor) insurance business, while the Government of Mysore is transacting miscellaneous (motor) insurance business.

GENERAL INSURANCE

On 31 December 1970, there were 68 Indian insurers (including the Life Insurance Corporation of India) and 45 non-Indian insurers registered under the Insurance Act, 1938 for transacting various classes of general insurance business.

On 13 May 1971, the President of India promulgated the General Insurance (Emergency Provisions) Ordinance, 1971 in terms of which the management of all insurers, Indian (with the exception of LIC and State Governments) as well as foreign, registered under the Insurance Act for transacting one or more classes of general insurance business in India, vested in the Government. The Ordinance provided for payment of compensation in cash to the insurers whose management was to be taken over. It also empowered the Government to appoint custodians to manage the insurers. On 19 May 1971 the Central Government appointed 30 custodians drawn from the insurance field for 102 general insurance companies whose management was taken over by the Government.

Later, the General Insurance (Emergency Provisions) Act, 1971 came into force from 13 May 1971. The expenditure on account of the payment of compensation is about Rs 33 lakhs per month.

The General Insurance Business (Nationalisation) Bill, 1972, was passed by the Lok Sabha on 28 August 1972 and by the Rajya Sabha on 2 September 1972.*

General Insurance Business of LIC

The Life Insurance Corporation of India commenced transacting general insurance business from 1 April 1964. From 1 April 1971, it discontinued open market business and also arranged for the transfer of its tied accounts business to its subsidiary, *viz.*, the Oriental Fire and General Insurance Co. Ltd. It, however, continues to write general insurance business in the public sector. It completed a gross direct premium of Rs 23.09 crores during 1970-71 as against Rs 18.04 crores during 1969-70.

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*The latest available figures for general insurance are for the year 1969. For these figures, please refer to "India 1971-72", p. 212

Assets and Investments

The total assets of the general insurance business of Indian insurers on 31 December 1969 amounted to Rs 187.86 crores. The pattern of investment at the end of 1969 was as follows :

	Per cent
Central and State Government securities	5.1
Indian municipal, port and improvement trust securities	0.1
Shares and debentures of Indian companies	37.0
Foreign government securities	1.3
Agents' balances, outstanding premiums and amounts due from others	19.4
Deposits, cash and stamps	23.1
Other assets	14.0
TOTAL	100.0

LIFE INSURANCE

The Life Insurance Corporation of India, which came into existence on 1 September 1956, took over all the assets and liabilities appertaining to the "controlled business" of 247 insurers, including three State insurance departments. On 31 March 1971, the Corporation had 37 divisional offices, 431 branch offices, 108 sub-offices and 125 development centres in India.

Business by Corporation

During 1970-71 (up to 31 March), the Corporation issued 16.16 lakh new policies assuring Rs 1,303 crores as against 14.01 lakh policies assuring Rs 1,036 crores issued during 1969-70—an increase of 15.3 per cent in terms of number of policies and an increase of 25.8 per cent in terms of sum assured over the preceding year. Of the total number of policies, 5,06,992 policies assuring Rs 296.37 crores were issued in rural areas and 8,24,842 policies assuring Rs 324.03 crores were issued under the non-medical schemes.

The life insurance business in force (inclusive of group insurance business) at the end of each of the last five accounting periods is given below:

TABLE 12.14
LIFE INSURANCE—TOTAL BUSINESS

Business in force on 31 March	In India		Out of India*		Total	
	No. of policies (lakhs)	Sums assured & bonuses (Rs crores)	No. of policies (lakhs)	Sums assured & bonuses (Rs crores)	No. of policies (lakhs)	Sums assured & bonuses (Rs crores)
1967	119.98	4,593	1.24**	131**	121.22	4,724
1968	126.43	5,116	1.16	124	127.59	5,240
1969	133.45	5,606	1.08	119	134.53	5,725
1970	139.39	6,303	1.02	122	140.41	6,425
1971	146.93	7,071	0.92	115	147.85	7,186

* Out of India figures exclude those relating to Pakistan business.
** Out of India figures exclude those relating to Pakistan and South African business.

Foreign Business

The Corporation transacted new business in Fiji, Kenya, Malaysia, Mauritius, Nepal, Singapore and the United Kingdom. The Corporation ceased writing new business in Hong Kong from 1 April 1971.

During the year ended 31 March 1971, the Corporation received from these countries 4,536 proposals for assurances amounting to Rs 9.65 crores and issued 3,945 policies assuring a sum of Rs 8.51 crores as against 5,221 proposals for assurances amounting to Rs 11.62 crores and 4,661 policies assuring a sum of Rs 10.28 crores during the preceding year.

Working Results

The total net income of the Corporation during the year ended 31 March 1971 was Rs 394.01 crores of which premium income was Rs 292.15 crores. On 31 March 1971, the Corporation's Life Fund amounted to Rs 1,825.05 crores.

Salary Savings Scheme

The Salary Savings Scheme for State Government employees is operating in the States of Andhra Pradesh, Gujarat, Haryana, Kerala, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh. The scheme continues to be in operation in regard to the non-gazetted employees of the Central Government offices throughout India.

Under this scheme, the Corporation issued in India during 1970-71 4,86,113 policies assuring Rs 252.06 crores as against 3,75,605 policies assuring Rs 177.33 crores during the previous year.

Financing of Housing Schemes

During 1970-71, loans amounting to Rs 17 crores were advanced to the State Governments for financing various housing schemes. Rs 16.57 crores were advanced to the cooperative housing finance societies and other authorities for financing housing cooperatives in various States.

The 'Own Your Home' scheme is in operation at all places where the Corporation has either a branch office or a sub-office. It is also in operation at a few selected centres where the Corporation does not have any office. The scheme was in operation at 424 centres on 31 March 1971. During the year ended 31 March 1971, 1,202 loans amounting to Rs 371.62 lakhs were sanctioned to policyholders for construction or purchase of houses bringing the total number of loans to 7,233 and the amount sanctioned to Rs 2,086.41 lakhs.

Other schemes for financing house construction include (a) loans to public limited companies for the purpose of providing houses to their employees, and (b) loans to cooperative housing societies formed by the employees of public limited companies. By 31 March 1971, 21 loans amounting to Rs 246.30 lakhs under the former scheme and seven loans amounting to Rs 53.93 lakhs under the latter scheme had been sanctioned. The Corporation introduced during 1970-71 a scheme to finance cooperative housing societies formed by the employees of the public sector undertakings.

The Corporation also grants loans to the cooperative housing societies formed by its own employees and also to individual employees for purchase or construction of houses. During the year ended 31 March 1971, applications for loans amounting to Rs 65.45 lakhs were sanctioned to 11 societies. One hundred and eleven societies consisting of 4,028 employee-members had taken advantage of this scheme by that date and had been sanctioned loans totalling Rs 618.71 lakhs. Loans amounting to Rs 22.85 lakhs were also sanctioned to 142 employees during the same period bringing the number of beneficiaries to 696 and the amount sanctioned to Rs 108.48 lakhs under the scheme.

As a first step towards developing housing projects, the Corporation has embarked on an ambitious project, *viz.*, Jeevan Bima Nagar Township at Vallabh Nagar Colony, Borivli, a suburb of Bombay. The township, when completed, will have about 2,500 flats, on which an expenditure of about Rs 4 crores is anticipated. The Corporation intends to develop similar townships in other important cities.

The total assistance given by the Corporation for the development of housing in India by way of loans to the State Governments and cooperative housing finance societies and loans under other schemes up to 31 March 1971, amounted to over Rs 300 crores. This included the expenditure incurred by the Corporation on its own building construction.

Investments

The total book value of the investments of the Corporation at the end of March 1971 amounted to Rs 1,717.59 crores. Of this, the total book value of the investments pertaining to the general business (including capital redemption and annuity certain business) was Rs 17.29 crores and that pertaining to life business was Rs 1,700.30 crores.

Staff

The number of employees in the service of the Corporation in India on 31 March 1971 was 51,938 as against 51,338 as at the end of the previous year. There were 1,48,214 agents on the rolls of the Corporation in India on 31 March 1971 as against 1,46,949 on 31 March 1970.

OTHER INSURANCE

War Risks (Marine Hulls) Insurance Scheme

The War Risks (Marine Hulls) Insurance Scheme, which is a voluntary scheme, was introducted by the Government of India in September 1965, when foreign re-insurers cancelled the war risks cover on Indian ships in the wake of hostilities with Pakistan, and re-instatement of the cover was possible only at very high rates of premium. All the ships borne on the Indian Register as well as mechanised sailing vessels are eligible for insurance under the scheme. The Life Insurance Corporation of India, which acts as the Government agent, issues the cover but the risk is wholly reinsured with the Government of India at the same rates of premium.

The policies under this scheme are issued for a quarter at a time. The rate of premium for each quarter is fixed in advance by the Central Government. The rate in force since October 1967 is 0.2 per cent per annum.

Emergency Risks Insurance

The Emergency Risks (Goods) Insurance Act, 1971 and the Emergency Risks (Undertakings) Insurance, 1971 and the schemes framed thereunder, which were brought into operation on 10 December 1971 provide for compulsory insurance of goods (with certain exception) as well as of factories, inland vessels, plants and machinery of mines, oil installations, gas and electric supply undertakings, hydroelectric supply undertakings (except the transmission and distribution lines) and standing tea crops. The schemes are framed to ensure normal commercial activity including production in factories and sale and movement of commodities without the fear of losses as a result of enemy action.

With the revocation of proclamation of Emergency from 10 January 1968, the Acts and the schemes framed thereunder ceased to be in force on that date. However, the liability to pay arrears of premium as also the relevant claims that arose due to enemy action which have remained unpaid, subsists.

13 PLANNING

Political freedom in 1947 paved the way for economic transformation and social justice. Vast agricultural, irrigation and mineral resources lay unexploited and the available scarce resources needed rational allocation among competing demands. Planning offered the only way to achieve a rapid and balanced growth within the framework of well-defined national priorities. The Government of India accordingly appointed a Planning Commission in March 1950 to prepare a blueprint of development taking an overall view of the needs and resources of the country.

FIRST, SECOND AND THIRD FIVE YEAR PLANS

Objectives

The First Five Year Plan (1951-52 to 1955-56) had a two-fold objective. Firstly, it aimed at correcting the disequilibrium in the economy caused by the war and the partition of the country. Secondly, it sought to initiate simultaneously a process of all-round balanced development which would ensure a rising national income and a steady improvement in the living standards over a period of time. Since the country had to import 47 lakh tons of foodgrains in 1951 and there were inflationary pressures in the economy, the Plan accorded the highest priority to agriculture, including irrigation and power projects, and 44.6 per cent of the total outlay of Rs 2,069 crores in the public sector (later raised to Rs 2,356 crores) was allotted for their development. The Plan aimed at increasing the investment from the level of 5 per cent to about 7 per cent of the national income.

In December 1954, Parliament declared that the broad objective of economic policy should be to achieve the "socialist pattern of society". Under the socialist pattern of society, the basic criteria for determining the lines of advance were to be not private profit but social gain and greater equality in incomes and wealth. It was stressed that a socialist economy must be efficient, progressive in its approach to science and technology and capable of growing steadily to a level at which the well-being of the mass of population can be secured. The Second Five Year Plan (1956-57 to 1960-61), therefore, sought to promote a pattern of development which would lead to the establishment of a socialistic society in India. In particular, it stressed that the benefits of economic development should accrue more to the relatively less privileged sections of society, and there should be a progressive reduction in the concentration of incomes, wealth and economic power.

This Plan aimed at: (i) an increase of 25 per cent in the national income; (ii) rapid industrialisation with particular emphasis on the development of basic and heavy industries; (iii) a large expansion of employment opportunities; and (iv) a reduction of inequalities in income and wealth and a more even distribution of economic power. The Plan aimed at increasing the rate of investment from about 7 per cent of the national income to 11 per cent by 1960-61. With an outlay of Rs 4,800 crores in the public sector (of which Rs 3,650 crores was the investment outlay) and Rs 3,100 crores in the private sector, the Plan laid particular stress on industrialisation, such as increased production of iron and steel and of heavy chemicals including nitrogenous fertilizers and development of heavy engineering and machine-building industry.

The Second Plan was followed by the Third Five Year Plan (1961-62 to 1965-66) whose principal aim was to secure a marked advance towards self-sustaining growth. Its immediate objective was to: (i) secure an increase in the national income of over 5 per cent per annum, and at the same time ensure a pattern of investment which could sustain this rate of growth during subsequent Plan periods; (ii) achieve self-sufficiency in foodgrains and increase agricultural production to meet the requirements of industry and exports; (iii) expand basic industries like steel, chemicals, fuel and power and establish machine-building capacity, so that the requirements of further industrialisation could be met within a period of ten years or so mainly from the country's own resources; (iv) utilise to the fullest possible extent the man-power resources of the country and ensure a substantial expansion in employment opportunities; and (v) establish progressively greater equality of opportunity and bring about reduction in disparities of income and wealth and a more even distribution of economic power. The national income was to increase by about 30 per cent, from Rs 14,500 crores in 1960-61 to about Rs 19,000 crores by 1965-66 (at 1960-61 prices) and per capita income by about 17 per cent, from Rs 330 to about Rs 385 during the same period.

Outlay and Investment

Against the revised outlay of Rs 2,356 crores in the public sector in the First Plan, the actual expenditure amounted to Rs 1,960 crores. In the Second Plan, against the provision of Rs 4,800 crores in the public sector, the actual expenditure amounted to Rs 4,672 crores while the private sector achieved an investment of Rs 3,100 crores. The Third Plan provided for an outlay of Rs 7,500 crores for the public sector. Against this, the actual expenditure in the public sector amounted to Rs 8,577 crores. In the private sector there was an investment of over Rs 4,000 crores.

The outlay and investment and the scheme of financing during the three Plans are given in Tables 13.1, 13.2 and 13.3.

TABLE 13.1
PUBLIC SECTOR AND PRIVATE SECTOR INVESTMENT DURING THREE PLANS

(*Rs crores*)

Plan	Public sector outlay				Private sector investment	Total Plan expenditure
	Plan provision	Actual expenditure	Current expenditure	Investment		
First Plan	2,356	1,960	400	1,560	1,800	3,760
Second Plan	4,800	4,672	941	3,731	3,100	7,772
Third Plan	7,500	8,577	1,448	7,129	4,190	12,767

Achievements during the Three Plans

Fifteen years of planning resulted in all-round progress of the economy despite occasional setbacks. Notable expansion took place in basic facilities like irrigation, power and transport and valuable mineral deposits were opened up to feed industries, small and large.

During the First Plan, owing largely to the increase in agricultural production, the national income went up by 18 per cent as against

TABLE 13.2

PUBLIC SECTOR OUTLAY DURING THE FIRST THREE PLANS

(*Rs crores*)

Head of Development	First Plan 1951-56	Second Plan 1956-61			Third Plan 1961-66		
	Total	Centre*	States	Total	Centre	States	Total
1. Agriculture & allied sectors	290 (14.8)	53 (9.7)	496 (90.3)	549 (11.7)	117 (10.7)	972 (89.3)	1,089 (12.7)
2. Irrigation and flood control	434 (22.2)	55 (12.8)	375 (87.2)	430 (9.2)	10 (1.5)	655 (98.5)	665 (7.8)
3. Power	149 (7.6)	28 (6.2)	424 (93.8)	452 (9.7)	113 (9.0)	1,139 (91.0)	1,252 (14.6)
4. Village and small industries	42 (2.1)	106 (56.7)	81 (43.3)	187 (4.0)	1,764 (89.7)	203 (10.3)	241 (2.8)
5. Industry and minerals	55 (2.8)	898 (95.7)	40 (4.3)	938 (20.1)			1,726 (20.1)
6. Transport and communications	518 (26.4)	1,092 (86.6)	169 (13.4)	1,261 (27.0)	1,818 (86.1)	294 (13.9)	2,112 (24.6)
7. Others	472 (24.1)	357 (41.8)	498 (58.2)	855 (18.3)	590 (39.6)	902 (60.4)	1,492 (17.4)
Of which							
(*a*) *Education & scientific research* ..	149 (7.6)			273 (5.8)			660 (7.7)
(*b*) *Health*	98 (5.0)			216 (4.6)			226 (2.6)
(*c*) *Family planning*	—			—	..	..	25 (0.3)
TOTAL	1,960 (100.0)	2,589 (55.4)	2,083 (44.6)	4,672 (100.0)	4,412 (51.4)	4,165 (48.6)	8,577 (100.0)

* Residual figures. To the extent that the States' share of total outlay is out of a total of Rs 4,600 crores (later revised to Rs 4,672 crores for which Centre and State-wise break-up is not available), the Centre's outlay may be overstated. Figures in brackets under columns 'Centre'/'States' represent percentage to outlay in the concerned sector.

TABLE 13.3

FINANCING OF PLAN OUTLAYS IN THE PUBLIC SECTOR

(*Rs crores*)

Item	First Five Year Plan		Second Five Year Plan		Third Five Year Plan	
	Original estimates	Actuals	Original estimates	Actuals	Original estimates	Actuals
A. *Mainly through own resources*	740 (35.7)	752 (38.4)	1,350 (28.1)	1,230 (26.3)	2,810 (37.5)	2,908 (33.9)
1. Balance from current revenues, at pre-Plan rates of taxation	570	382	350	11	550	419
2. Additional taxation, including measures to increase the surplus of public enterprises	a	255[b]	850[b]	1,052[b]	1,710	2,892
3. Retained profits of Reserve Bank	—	—	—	—	—	—
4. Surplus of Public Sector Undertakings, exclusive of yield from measures adopted for raising additional resources for the Plan	170	115	150	167	550	435
a) Raiways	170[e]	115[e]	150[e]	167[e]	100	62
b) Others	f	f	f	f	450	373
B. *Mainly through domestic borrowings*	808 (39.1)	1,019 (52.0)	2,650 (55.2)	2,393 (51.2)	2,490 (33.2)	3,246 (37.9)
1. Loans from the public, including State enterprises' borrowings from market and LIC (net)	115[h]	204[h]	700[h]	756[h,i]	800	823
2. Small savings	225	243	500	422	600	565
3. Annuity Deposits, Compulsory Deposits, Prize Bonds and Gold Bonds	—	—	—	—	—	117
4. State Provident Funds[k]	45	92	250	175[j]	265	336
5. Steel Equalisation Fund (net)	—	—		40	105	34
6. Miscellaneous capital receipts (net)	133	147		46	170	238
7. Deficit financing[l]	290	333	1,200	954	550	1,133
C. *Total domestic resources* (A+B)	1,548 (74.8)	1,771 (90.4)	4,000 (83.3)	3,623 (77.5)	5,300 (70.7)	6,154 (71.8)
D. *External assistance*[n]	521 (25.2)	189 (9.6)	800 (16.7)	1,049 (22.5)	2,200 (29.3)	2,423 (28.2)
E. *Total resources* (C+D)	2,069 (100.0)	1,960 (100.0)	4,800 (100.0)	4,672 (100.0)	7,500 (100.0)	8,577 (100.0)

Note: Figures in brackets are percentages to total.

(a) Included under items A1 and A4. (b) Excluding yield from changes in railway fares and freights. (e) Inclusive of yield from changes in railway fares and freights. (f) Included under items Al and B6. (h) Market borrowings by Central and State Governments. (i) Includes investments by the State Bank of India of PL 480 funds. (k) For the First and the Second Plans the figures relate to unfunded debt. (l) The figures of deficit financing shown for the Third Plan period and thereafter refer to changes in Government indebtedness (both long-term and short-term) to the Reserve Bank of India. For earlier Plans they indicate budget deficit. On a comparable basis deficit financing during the First and the Second Plan periods works out to Rs 260 crores and Rs 1,170 crores, respectively. (j) Includes unexpended debt other than State Provident Funds. (n) At the new rate of exchange.

a target of 12 per cent. In the Second Plan, the increase in the national income was 20 per cent as against a target of 25 per cent and during the Third Plan national income (revised series) at 1960-61 prices rose by 20 per cent in the first four years and registered a decline of 5.7 per cent in the last year. Per capita real income in 1965-66 remained the same as it was in 1960-61 owing to a 2.5 per cent growth in population.

Agricultural production increased by about 41 per cent during the first two Plans. In the Third Plan, the performance of agriculture was not satisfactory. In 1965-66 and 1966-67, there were widespread drought conditions and agricultural production fell sharply. This not only slowed down the rate of growth of the economy but also increased our dependence on food imports. During the Third Plan, the country imported 250 lakh tonnes of foodgrains. We had also to import 39 lakh bales of cotton and 15 lakh bales of jute.

The net output in organised manufacturing industries nearly doubled during the first two Plans. The share of the public sector industries in it went up from 1.5 per cent at the beginning of the First Plan to 8.4 per cent at the end of the Second and much of this increase was in key industries like steel, coal mining and heavy chemicals. In the Third Plan, the production of organised industry increased by 8 to 10 per cent annually during the first four years but the rate of increase declined to 5.3 per cent in the last year of the Plan due to dislocation caused by Indo-Pakistan conflict and disruption in the flow of foreign aid. Over the Third Plan, as a whole, the growth rate of organised industries was 8.2 per cent against a target of 11 per cent. A notable feature, however, was the continuous increase and diversification of production capacity, specially in steel and aluminium, machine tools, industrial machinery, electrical and transport equipment, fertilizers, drugs, pharmaceuticals and petroleum products. All this contributed to the strengthening of the industrial structure.

There was a marked progress in the extension of health and educational facilities. Expectation of life at birth increased from 35 years in 1950-51 to 50 in 1971. School enrolment increased from 235 lakhs in 1950-51 to 663 lakhs in 1965-66. Special programmes, devised for amelioration of the conditions of the scheduled castes and scheduled tribes, brought them multifarious benefits and strengthened their position.

ANNUAL PLANS

The Third Five Year Plan was followed by three Annual Plans 1966-69. The situation created by the Indo-Pakistan conflict, two successive years of severe drought, devaluation of the currency, general rise in prices and erosion of resources available for Plan purposes had delayed the finalisation of the Fourth Five Year Plan. During this period, three Annual Plans were formulated within the framework of the Draft Outline of the Fourth Plan. They took into account the conditions prevailing at the time. The state of the economy and the non-availability of financial resources for Plan purposes kept down the size of development outlays during this period.

The outlay by major heads of development in the Annual Plans was as follows (Rs crores): Agriculture and allied sectors 1,166.6; Irrigation and Flood Control 457.1; Power 1,182.2; Village and

Small Industries 144.1; Industry and Minerals 1,575.0; Transport and Communications 1,239.1; Education 322.4; Scientific Research 51.1; Health 140.1; Family Planning 75.2; Water Supply and Sanitation 100.6; Housing, Urban and Regional Development 63.4; Welfare of Backward Classes 68.5; Social Welfare 12.1; Labour Welfare and Craftsmen's Training 35.5 and Other Programmes 123.5. The total outlay during the three years amounted to Rs 6,756.5 crores. The sources of finance are given in Table 13.4.

TABLE 13.4
Financing of the Annual Plans 1966-1969

(*Rs crores*)

Item	Latest estimates		
	Centre	States	Total
1. *Domestic budgetary resources*	**2,397**	**1,251**	**3,648**
2. Balance from current revenues at 1965-66 rates of taxation	184	119	303
3. Surplus of public enterprises at 1965-66 fares, freights and tariffs	215	194	409
4. Railways	(—) 112	—	(—) 112
5. Others	327	194	521
6. Additional taxation, including measures to increase the surplus of public enterprises	611	299[1]	910
7. Loans from public (net)[2]	384	335	719
8. Small savings	125	230	355
9. Annuity deposits, compulsory deposits, prize bonds and gold bonds	65	—	65
10. State provident funds	176	125	301
11. Miscellaneous capital receipts (net)	637	(—)514[3]	586
12. *Budgetary receipts corresponding to external assistance* (*net*)	**2,426**	—	**2,426**
13. Other than PL 480	1,507	—	1,507
14. PL 480 assistance	919	—	919
15. *Deficit financing*	**644**	**38**	**682**
16. *Aggregate resources* (1+12+15)	**5,467**	**1,289**	**6,756**
17. Central assistance for State plans	(—)1,763	1,763	—
18. *Resources for the plans* (16+17)	**3,704**	**3,052**	**6,756**

[1] Inclusive of share in additional taxation by the Centre estimated at Rs 148 crores.

[2] Includes net borrowings by public enterprises from the market and LIC.

[3] After allowing for *ad hoc* loans from the Centre to States amounting to Rs 226 crores.

FOURTH FIVE YEAR PLAN

The Fourth Five Year Plan (April 1969 to March 1974) was presented to Parliament on 18 May 1970. It aims at accelerating the tempo of development in conditions of stability and reduced uncertainties. It proposes to introduce safeguards against the fluctuations of agricultural production as well as the uncertainties of foreign aid.

Perspective of Development (1969-1981)

According to the twelve-year perspective of which the Fourth Plan forms a part, the national income is expected to grow at a compound rate of about 6 per cent per annum, with rise in agricultural production of 5 per cent a year and annual expansion of around 9 per cent in the net income from mining, manufacturing and construction. The rate of increase in population is expeted to decline from 2.5 per cent a year to 1.7 per cent in 1980-81. This implies a drop in the birth rate from 39 per thousand to 25. As a result, the per capita income would rise by over 3.5 per cent per annum as against 1.2 per cent a year since the inception of the Five Year Plans.

The rate of growth of the national income, visualised above, would call for an increase in the investment-income ratio from 11.3 per cent in 1968-69 to 17-18 per cent by 1980-81. As the objective is to dispense with the net foreign aid by that time, export earnings would have to expand at 7 per cent a year, if the growth in non-food imports is to be limited to 5.5 per cent per annum. This also implies the stepping up of domestic savings rate from 8.8 per cent to 18 per cent in 1980-81.

The Government sector would account for nearly three-fourths of the improvement in the aggregate saving rate and its own saving to national income ratio would rise from 1.4 per cent to 8.2 per cent. Even if public consumption expenditure is allowed to expand at the rate of growth of national income (*i.e.*, 6 per cent), with 8-9 per cent annual increase in public expenditure on health, education and social services, and increase of 4-5 per cent a year on defence and non-development consumption outlays, the taxation effort required to achieve government saving target would raise the tax-income ratio from less than 13 per cent in 1968-69 to about 18.5 per cent in 1980-81.

The rising government expenditure on education, health and social services would improve the living standards of the masses.

Objectives

The Fourth Plan aims at increasing the standard of living of the people through measures which also promote equality and social justice. The Plan lays particular emphasis on improving the condition of the weaker sections and the less privileged, especially through provision of employment and education. Efforts are also to be directed towards reduction of concentration and a wider diffusion of wealth, income and economic power.

In more concrete terms the major objectives of the Plan are as follows :

i) to obtain annual rates of growth of over 5.5 per cent in the national income, of 5 per cent in agricultural production and of 8 to 10 per cent in industrial production;
ii) to achieve these overall and sectoral rates of growth in the national income, to raise the investment-income ratio from 11.3 per cent in 1968-69 to 14.5 per cent in 1973-74;
iii) reduction in foreign aid net of debt charges and interest payments to about one-half of the current level at the end of the Fourth Plan; this would require a sustained increase of about 7 per cent a year in exports and limitation of non-food imports to roughly 5.5 per cent per annum. Elimination of concessional imports of foodgrains under PL 480 by 1971;
iv) requirements of overall resources and policy decision as to the quantum of foreign aid would imply stepping up of savings-income ratio from 8.8 per cent in 1968-69 to 13.2 per cent in 1973-74. This works out to a marginal saving-income ratio of 28 per cent.

Targets

Table 13.8 presents selected targets of the Fourth Plan together with the achievements in 1969-70 and 1970-71 and the anticipated achievements in 1971-72.

Outlays: Size and Pattern

The Fourth Plan envisages a total outlay of Rs 24,882 crores, comprising Rs 15,902 crores in the public sector and an investment of

TABLE 13.5

OUTLAY AND INVESTMENT IN FOURTH PLAN: PUBLIC AND PRIVATE SECTORS

(*Rs crores*)

Head of development	Public sector				Private sector		Total Investment (4+6)	Public and private sectors	
	Total outlay	Current outlay	Investment	Percentage of total outlay	Invest-ment	Percentage distribution		Total outlay (2+6)	Percentage distribution
1	2	3	4	5	6	7	8	9	10
Agriculture and allied sectors	2,728	610	2,118	17.1	1,600	17.8	3,718	4,328	17.4
Irrigation and flood control	1,087	14	1,073	6.8	—	—	1,073	1,087	4.4
Power	2,448	—	2,448	15.4	75	0.8	2,523	2,523	10.1
Village and small industries	293	107	186	1.8	560	6.2	746	853	3.4
Industry and minerals	3,338	40	3,298	21.0	2,000	22.3	5,298	5,338	21.4
Transport and communications	3,237	40	3,197	20.3	920	10.2	4,117	4,157	16.7
Education	823	545	278	5.2	50	0.6	328	873	3.5
Scientific research	140	45	95	0.9	—	—	95	140	0.6
Health	434	303	131	2.7	—	—	131	434	1.7
Family planning	315	262	53	2.0	—	—	53	315	1.3
Water supply and sanitation	407	2	405	2.6	—	—	405	407	1.6
Housing, urban and regional development	237	2	235	1.5	2,175	24.3	2,410	2,412	9.7
Welfare of backward classes	142	142	—	0.9	—	—	—	142	0.6
Social welfare	41	41	—	0.3	—	—	—	41	0.2
Labour welfare and craftsmen training	40	20	20	0.3	—	—	20	40	0.2
Other programmes	192	74	118	1.2	—	—	118	192	0.8
Inventories	—	—	—	—	1,600	17.8	1,600	1,600	6.4
TOTAL	15,902	2,247	13,655	100.0	8,980	100.0	22,635	24,882	100.0

TABLE 13.6

Resources for the Fourth Plan—Centre and States

(*Rs crores*)

Item	Fourth Plan (original)			Fourth Plan (revised)		
	Centre	States	Total	Centre	States	Total
Balance from current revenues at 1968–69 rates of taxation	1,625	48	1,673	696	106	802*
Contribution of public enterprises at 1968–69 rates, freights and tariffs	1,534	495	2,029	837	334	1,171
Ratained profits of Reserve Bank	165	37	202	220	49	269
Market borrowings	900	515	1,415	1,000	575	1,575
Borrowing by term-lending institutions and Food Corporation of India	405	—	405	405	—	405
Small savings	274	495	769	363	637	1,000
Annunity deposits, etc.	(—)104	—	(—)104	(—)98	—	(—)98
State provident funds	343	317	660	439	343	782
MISCELLANEOUS:						
Capital receipts (net)	2,090	(—)405	1,685	1,996	(—)221	1,775
Additional resource mobilisation	**2,100**	**1,098**	**3,198**	**2,630**	**1,098**	**3,728**
LIC loans for housing and water supply	—	100	100	—	126	126
Market borrowings of States enterprises	—	258	258	—	400	400
LIC loans to State enterprises	—	148	148	—	220	220
Budgetary receipts corresponding to external assistance	**2,614**	—	**2,614**	**2,540**	—	**2,540**
Deficit financing	**850**	—	**850**	**1,100**	**103**	**1,203**
Aggregate resources	**12,796**	**3,106**	**15,902**	**12,128**	**3,770**	**15,898**
Assistance for State Plans	(—)3,500	3,500	—	(—)3,567**	3,567	—
Resources for the Plan	**9,296**	**6,606**	**15,902**	**8,561**	**7,337**	**15,898**

* Inclusive of States' share in fresh taxation by the Centre since 1969–70.

** Takes into account assistance for Himachal Pradesh for 1971–74.

One hundred and ninety-nine trainees in seven batches have so far completed training in these trades and ninety-eight trainees are at present undergoing training in these crafts. Centres for teachers' training for the deaf are located at Ahmedabad, Delhi, Bombay, Calcutta and Lucknow. A school for partially deaf children in Hyderabad imparts education to children with some functional hearing by utilising auditory training methods.

Orthopaedically Handicapped

The Central Government has decided to set up a National Centre for the Orthopaedically Handicapped in Bon-Hoogly, Calcutta. Regional centres will be set up in Bombay and Delhi. A committee appointed by the Central Government has suggested measures in educational, social, psychological and vocational areas to provide the widest possible range of services needed by orthopaedically handicapped children and adults. They are being worked out.

Mentally Retarded

A Model School for Mentally Deficient Children in Delhi imparts education to mentally deficient children of 6 to 15 years of age.

Scholarships and National Awards

The Department of Social Welfare awards scholarships to blind, deaf and orthopaedically handicapped students for general education and for technical and professional training. The number of such scholarships rose to 1,449 during 1971-72 compared to 891 during 1970-71.

National awards to three most efficient physically handicapped employees and three outstanding employers of the physically handicapped are also given every year.

RESEARCH AND EVALUATION

The Department of Social Welfare has set up a Standing Advisory Committee on Social Welfare Research. It has also set up a Statistical and Research Cell for collecting information and evaluating the social welfare programmes.

The Central Institute of Research and Training in Public Co-operation was sponsored by the Government in 1966 to promote voluntary action, step up people's participation in the Plan programmes, study activities of voluntary agencies, conduct research in the problems of voluntary organisations, train workers engaged in voluntary action and evaluate various programmes. The Institute also organises training and orientation courses, seminars, workshops and conferences.

SOCIAL LEGISLATION

The Child Marriage Restraint Act of 1929 provides for punishments in case of marriage to which a male under 18 years of age or a female under 15 years of age is a party.

The Hindu Marriage Act, 1955 lays down that for a fresh marriage neither party should have a spouse living.

Among other important social legislations covering children and women are: the Apprentices Act of 1950; the Reformatory Schools Act of 1897; the Borstal Schools Act; Juvenile Smoking Acts; the Hindu Married Women's Right to Separate Residence and Maintenance Act of 1946; the Hindu Marriage Disabilities Removal Act of 1946; the Hindu Marriage Validating Act, 1949; the Suppression of Immoral Traffic in Women and Girls Act, 1956; the Probation of Offenders Act, 1958 and the Children's Act, 1960 (meant for Union Territories) and similar Acts passed by the various States.

SCHEDULED AND BACKWARD CLASSES

Over one-fifth of India's population comprises the scheduled castes, scheduled tribes and other backward classes. The scheduled castes on account of certain traditional inabilities and the scheduled tribes mainly because of their geographical isolation have not been able to derive in full measure the benefits of planned economic development of the country.

While the Constitution has prescribed certain protective measures and safe-guards (listed below) for these classes, the successive five year Plans have regarded their progress as a major objective of national policy. Between 1950 and 1969, a sum of Rs 275 crores was spent under the Plans. Besides, the States made available Rs 100 crores from their non-plan budgets.

CONSTITUTIONAL SAFEGUARDS

The Constitution prescribes protection and safeguards for the scheduled castes and tribes and other backward classes either specially or by way of general rights of citizens with the object of promoting their educational and economic interests and of removing certain social disabilities the scheduled castes were subjected to. These are:

(i) the abolition of 'untouchability' and the forbidding of its practice in any form (art. 17);
(ii) the promotion of their educational and economic interests and their protection from social injustice and all forms of exploitation (art. 46);
(iii) the throwing open of Hindu religious institutions of a public character to all classes and sections of Hindus (art. 25);
(iv) the removal of any disability, liability, restriction or condition with regard to access to shops, public restaurants, hotels and places of public entertainment, the use of wells, tanks, bathing ghats, roads and places of public resort maintained wholly or partly out of State funds or dedicated to the use of the general public (art. 15);
(v) the curtailment, in the interests of any scheduled tribe, of the general rights of all citizens to move freely, settle in, acquire property or practise any trade or business [art. 19(5)];
(vi) the forbidding of any denial of admission to educational institutions maintained by the State or receiving aid out of State funds (art. 29);
(vii) the obligation of the State to consider their claims in the making of appointments to public services and make reservation for them in case of inadequate representation (arts. 16 and 335);
(viii) special representation in Parliament and the State legislatures till 25 January 1980 (arts. 330, 332 and 334);
(ix) the setting up of advisory councils and separate departments in the States and the appointment of a special officer at the Centre to promote their welfare and safeguard their interests (arts. 164 and 338 and Fifth Schedule); and
(x) special provision for the administration and control of scheduled and tribal areas (art. 244 and Fifth and Sixth Schedules).

Under articles 341 and 342 of the Constitution, the President has specified the scheduled castes and scheduled tribes. The Government of India have not specified backward classes other than the scheduled castes and scheduled tribes and have left this matter to the discretion of the respective State Governments, but they have been advised to adopt economic tests rather than caste criterion for this purpose.

LEGISLATION AGAINST UNTOUCHABILITY

The Untouchability (Offences) Act, 1955 provides penalties for preventing a person, on the ground of untouchability, from entering a place of public worship, offering prayers therein or taking water from a sacred tank, well or spring. Penalties are also provided for enforcing all kinds of social disabilities, such as denying access to any shop, restaurant, public hospital or educational institution, hotel or any place of public entertainment; the use of any road, river, well, tank, water tap, bathing ghat, cremation ground, sanitary convenience, dharamshala, sarai or musafirkhana or utensils kept in such institutions and hotels and restaurants. The Act prescribes penalties for enforcing occupational, professional or trade disabilities, or disabilities in the matter of enjoyment of any benefit under a charitable trust, in the construction or occupation of any residential premises in any locality or the observance of any social or religious usage or ceremony.

The Act similarly lays down penalties for refusing to sell goods or render services to a Harijan because he is a Harijan; for molesting, injuring or annoying a person, or organising a boycott of, or taking any part in the ex-communication of a person who has exercised the rights accruing to him as a result of the abolition of untouchability.

Higher penalties have been prescribed for subsequent offences. For purposes of awarding punishments, incitement or abetment of the offence has been treated in the same manner as the commission of the offence. The onus of proving innocence has been thrown on the accused. The offences under this Act are cognisable.

The Act is administered by the State Governments but its implementation is reviewed from time to time by the Commissioner for Scheduled Castes and Scheduled Tribes.

Since 1954 the Government of India have been giving financial support to the movement to eradicate untouchability. Both official and non-official agencies are being utilised for this purpose. The State Governments have instructed their officials who deal with the public to stress the need for, and the urgency of, doing away with this evil. Efforts are made to enlist people's co-operation in the eradication of untouchability. Most of the States have appointed small committees to enforce, where necessary, the provisions of the Untouchability (Offences) Act, 1955. Publicity media, such as books, pamphlets, handbills and audio-visual aids have also been pressed into service. In order to make the penal provisions of the Act more stringent, an amendment Bill was introduced in the Parliament during 1972.

POPULATION: STATE-WISE BREAK-UP

According to the 1971 census the population of the scheduled castes and scheduled tribes was 7,99,95,896 and 3,80,15,162 respectively.

The State-wise distribution of the scheduled castes and tribes is shown in Table 9.3.

REPRESENTATION IN LEGISLATURES

Under articles 330 and 332 of the Constitution, seats are reserved for the scheduled castes and scheduled tribes in the Lok Sabha and State Vidhan Sabhas in proportion to their population. This concession was to end on 25 January 1970 but Parliament, through the twenty-third amendment to the Constitution, has

TABLE 9.3
SCHEDULED CASTES AND SCHEDULED TRIBES (1971 CENSUS)

	Scheduled castes	Scheduled tribes
INDIA	7,99,95,896	3,80,15,162
States		
1. Andhra Pradesh	57,74,548	16,57,657
2. Assam	9,12,557	16,06,648
3. Bihar	79,50,652	49,32,767
4. Gujarat	18,25,432	37,34,422
5. Haryana	18,95,933	..
6. Himachal Pradesh	7,69,572	1,41,610
7. Jammu and Kashmir	3,81,277	..
8. Kerala	17,72,168	2,69,356
9. Madhya Pradesh	54,53,690	83,87,403
10. Maharashtra	30,25,761	29,54,249
11. Manipur	16,376	3,34,466
12. Meghalaya	3,887	8,14,230
13. Mysore	38,50,034	2,31,268
14. Nagaland	..	4,57,602
15. Orissa	33,10,854	50,71,937
16. Punjab	33,48,217	..
17. Rajasthan	40,75,580	31,25,506
18. Tamil Nadu	73,15,595	3,11,515
19. Tripura	1,92,860	4,50,544
20. Uttar Pradesh	1,85,48,916	1,98,565
21. West Bengal	88,16,028	25,32,969
Union Territories		
1. Andaman & Nicobar Islands	..	18,102
2. Arunachal Pradesh	339	3,69,408
3. Chandigarh	29,073	..
4. Dadra & Nagar Haveli	1,332	64,445
5. Delhi	6,35,698	..
6. Goa, Daman & Diu	16,514	7,654
7. Laccadive, Minicoy & Amindivi Islands	..	29,540
8. Mizoram	82	3,13,299
9. Pondicherry	72,921	..

extended the period of reservation till 25 January 1980. Table 9.4 gives details of their representation in the Houses mentioned above. There is no reservation of seats in the Rajya Sabha and State Vidhan Parishads.

Following the introduction of Panchayati Raj, suitable safeguards have been provided for proper representation of the members of the scheduled castes and scheduled tribes by reserving seats for them in the Gram Panchayats and other local bodies.

RESERVATION IN THE SERVICES

The manner in which the State carries out its obligation to reserve posts for the scheduled castes and tribes in the public services in case of inadequate representation and to consider their claims consistent with the maintenance of efficiency of administration has been left outside the purview of obligatory consultation with the Public Service Commission [art. 320 (4)].

For the scheduled castes, reservation is 15 per cent of the vacancies for which recruitment is made by open competition on an all-India basis and 16-2/3 per cent of the vacancies to which recruitment is made otherwise. For the scheduled tribes, the reservation is 7½ per cent in both cases. Reservations in direct recruitment to class III and IV posts, which normally attract candidates from a locality or

TABLE 9.4
RESERVATION OF SEATS IN LEGISLATURES

	Lok Sabha			State Vidhan Sabhas		
	Total	Seats reserved for scheduled castes	Seats reserved for scheduled tribes	Total	Seats reserved for scheduled castes	Seats reserved for scheduled tribes
States						
1. Andhra Pradesh	41	6	2	287	40	11
2. Assam	14	1	2	114	8	14*
3. Bihar	53	7	5	318	45	29
4. Gujarat	24	2	3	168	11	22
5. Haryana	9	2	—	81	15	—
6. Himachal Pradesh	4	1	—	68	16	3
7. Jammu & Kashmir	6	—	—	75**	6	—
8. Kerala	19	2	—	133	11	2
9. Madhya Pradesh	37	5	8	296	39	61
10. Maharashtra	45	3	3	270	15	16
11. Manipur	2	—	1	60	1	19
12. Meghalaya	2	—	2	60	—	50
13. Mysore	27	4	—	216	29	2
14. Nagaland	1	—	—	52	—	—
15. Orissa	20	3	5	140	22	34
16. Punjab	13	3	—	104	23	—
17. Rajasthan	23	4	3	184	31	21
18. Tamil Nadu	39	7	—	234	42	2
19. Tripura	2	—	1	60	6	19
20. Uttar Pradesh	85	18	—	425	89	—
21. West Bengal	40	8	2	280	55	16
Union Territories						
1. Andaman & Nicobar Islands	1	—	—	—	—	—
2. Arunachal Pradesh	1	—	—	—	—	—
3. Chandigarh	1	—	—	—	—	—
4. Dadra & Nagar Haveli	1	—	1	—	—	—
5. Delhi	7	1	—	56†	7	—
6. Goa, Daman & Diu	2	—	—	30	—	—
7. Laccadive, Minicoy & Amindivi Islands	1	—	1	—	—	—
8. Mizoram	1	—	1	30	—	—
9. Pondicherry	1	—	—	30	5	—
	522	77	40	3,771	516	321

* 4 Seats reserved for two autonomous districts *i.e.* North Cachar and Mikir Hills districts

** Excluding 25 seats in the territory held by Pakistan—section 48 of the Constitution of Jammu & Kashmir

† Metropolitan Council

region, are fixed in proportion to the population of the scheduled castes and scheduled tribes in the respective States and Union Territories.

Reservation is also made at 15 per cent of the vacancies for the scheduled castes and 7½ per cent of the vacancies for the scheduled tribes in promotions on the results of the competitive examinations limited to departmental candidates in classes II, III and IV and in promotions by selection in classes III and IV in grades or services to which direct recruitment, if any, does not exceed 50 per cent.

In the case of promotion by selection from class III to class II, within class II, and from class II to the lowest rung or category in class I, such employees, unless they are found unfit, are given one higher grading in categorisation on merit; the concession is confined to 25 per cent of the total vacancies in a grade in a year. In promotions by selection within class I to posts carrying an ultimate salary of Rs 2,000 p.m. or less, the scheduled castes/tribes officers who are senior enough in the zone of consideration for promotion and are within the number of vacancies for which the select list has to be drawn, are included in that list provided they are not considered unfit for promotion.

To facilitate their adequate representation, concessions, such as, (i) relaxation in age limit, (ii) relaxation in the standard of suitability and (iii) selection provided they are not found unfit for the post/posts, have been provided for. If no suitable scheduled caste or scheduled tribe candidates are available for the reserved posts, they are treated as unreserved and an equal number of reservations are carried forward to three recruitment years. In no recruitment year, however, the number of reserved vacancies is to exceed 45 per cent of the total vacancies.

To give proper effect to the reservations decided upon, model rosters of 40 points each have been prescribed for recruitment by open competition and otherwise on an all-India basis. If the vacancies in a service or cadre are too few for the purpose, all corresponding posts are grouped together. Annual statements are required to be submitted by the recruiting authorities for scrutiny by the Government. To bring about a greater awareness for ensuring effective implementation of the special representation orders, liaison officers have been appointed in the different Ministries of the Union Government.

Some of the State Governments have also drawn up rules for the reservation of posts for these classes and steps have been taken to increase their representation in the State services.

The number of officers under the Central Government belonging to the scheduled castes and scheduled tribes in various grades as on 1 January 1970 was: class I—693; class II—1,660; class III—1,60,614 and class IV (excluding sweepers)—2,61,282. The number of officers belonging to the scheduled castes/tribes in all-India services as on 1 January 1970 was: ICS/IAS—270; IP/IPS—150 and IFS—36. A high-powered committee was set up under the chairmanship of the Home Minister in 1968-69 to review the progress of employment of the scheduled castes and scheduled tribes under the Government of India, the Union Territories and the public sector undertakings. The committee has been reconstituted under the chairmanship of the Prime Minister.

Special arrangements have been made for training of class I officers belonging to the scheduled castes and scheduled tribes.

ADMINISTRATION OF TRIBAL AREAS

The tribal areas in the States of Assam and Meghalaya and the Union Territory of Mizoram are administered subject to the provisions of the Sixth Schedule to the Constitution. For the purposes of this Schedule, they are divided into autonomous districts. There are eight such districts, namely, the North Cachar Hills district and the Mikir Hills district in Assam, the United Khasi-Jaintia Hills district, the Jowai district and the Garo Hills district in Meghalaya and the Chakma district, the Lakher district and the Pawi district in Mizoram. Each autonomous district has a district council consisting of not more than 30 members of whom not more than four can be nominated and the rest are to be elected on the basis of adult suffrage. The councils are vested with certain administrative, legislative and judicial powers under the Sixth Schedule.

WELFARE AND ADVISORY AGENCIES

A special officer designated as the Commissioner for Scheduled Castes and Scheduled Tribes investigates all matters relating to the safeguards for the scheduled castes and scheduled tribes provided under the Constitution and reports to the President on the working of the safeguards.

In June 1967, the office of the Commissioner for Scheduled Castes and Scheduled Tribes was reorganised and a separate organisation was set up in the Department of Social Welfare under the charge of a Director-General for Backward Classes Welfare to formulate schemes for the welfare of backward classes, watch the progress of implementation and maintain liaison with the States.

Parliamentary Committee

A new Parliamentary committee on the welfare of scheduled castes and scheduled tribes was constituted in July 1971. The tenure of the first Parliamentary Committee expired on 17 December 1970. The tenure of the present committee is two years.

Welfare Departments in States

The State Governments and Union Territory Administrations have in general separate departments to look after the welfare of the scheduled castes and scheduled tribes and other backward classes. The administrative set-up varies from State to State depending upon the quantum of welfare measures undertaken. In the States of Bihar, Madhya Pradesh and Orissa, separate Ministers have been appointed to look after the tribal welfare as envisaged in article 164 of the Constitution. Some other States have set up committees of members of State legislatures on the pattern of the Parliamentary committee.

Voluntary Organisations

Apart from the Central and State Governments, various voluntary organisations are also engaged in promoting the welfare of the scheduled castes. Important organisations of all-India character are: All India Harijan Sewak Sangh, Delhi; Bharatiya Depressed Classes League, New Delhi; Iswar Saran Ashram, Allahabad; Indian Red Cross Society, New Delhi; Hind Sweepers Sewak Sangh, New Delhi and Ramakrishna Mission, Narendrapur, West Bengal.

Voluntary organisations working for the scheduled tribes are Bharatiya Adimjati Sewak Sangh, New Delhi; Indian Council for Child Welfare, New Delhi; Andhra Pradesh and Andhra Rashtra Adimjati Sewak Sangh; Ramakrishna Mission, Cherrapunji, Ranchi, Puri, Silchar, Along and Shillong; and Thakkar Bapa Ashram, Nimakhandi (Orissa).

The Servants of India Society, Poona and All India Backward Classes Federation, Delhi look after the interests of the backward classes, while Bharatiya Ghumantu Jan (Khanabadosh) Sewak Sangh, Delhi serves the nomadic and semi-nomadic tribes.

The Government of India sanctions grants to national voluntary organisations against specific schemes for the welfare of backward classes. A provision of Rs 2 crores exists in the Fourth Plan for this purpose.

WELFARE SCHEMES

Expenditure during the Plans

A sum of Rs 275 crores was spent on the special Plan programmes for the welfare of scheduled castes/tribes and other backward classes during the period 1950-69, of which Rs 206 crores was spent during the first three Plans and Rs 69 crores during 1966-69. The break-up of the expenditure is given in Table 9.5.

TABLE 9.5
EXPENDITURE DURING 1950-69

(*Rs crores*)

	First Plan	Second Plan	Third Plan	1966-69
Scheduled tribes	17.00	41.00	53.00	69.00
Scheduled castes	6.00	28.00	38.00	
Denotified tribes	1.00	2.00	4.00	
Others	2.00	7.00	7.00	
TOTAL	26.00	78.00	102.00	69.00

In the Fourth Plan, an outlay of Rs 142.38 crores—Rs 60 crores in the Central sector and Rs 82.38 crores in the State sector—has been earmarked.

Plan Programmes

The Plan programmes for the welfare of backward classes fall into three main groups: Centrally-operated, Centrally-sponsored and State sector. Important schemes being implemented under these categories are briefly described below.

Centrally-Operated Schemes

Direct Disbursement of Post-Matric Scholarships

In order to avoid delay in the payment of scholarships to scheduled caste and scheduled tribe students hailing from different States and studying at one place, direct disbursement of inter-State post-matric scholarships has been taken up as an experimental measure in Gauhati from this year.

Coaching-cum-*Guidance Centres*

A large number of posts in the public services reserved for the scheduled caste and scheduled tribe candidates remain unfilled mainly because in a number of cases candidates belonging to these groups do not appear and qualify for these appointments. In order to increase the number of candidates competing for these posts and to enhance their chances of selection, career planning and guidance and pre-employment coaching are given to these candidates in the four coaching-*cum*-guidance centres set up at Delhi, Kanpur, Jabalpur and Madras.

Overseas Scholarships

Scholarships to deserving scheduled caste/tribe students for studies in foreign countries are being awarded by the Union Government since 1953. The number of such scholarships per year is nine—four each to the scheduled castes and scheduled tribes and one to denotified, nomadic and semi-nomadic tribes. Tourist class sea passages are given to students who receive foreign scholarships without travel grants.

Also, 17½ per cent of merit scholarships granted by the Centre to deserving students of the lower income groups for studies in the institutions which are members of the Indian Public Schools Conference are reserved for backward communities. Some of the State Governments offer similar scholarships. Some public schools also award scholarships to deserving backward class students.

Centrally-Sponsored Schemes

Post-Matric Scholarships

Post-matric scholarships are given to eligible scheduled caste students. 37,077 such scholarships were awarded during the First Plan, 1,61,470 during the Second Plan and 3,18,964 during the Third Plan. The expenditure rose from Rs 1.58 crores in the First Plan to Rs 14.88 crores in the Third Plan. During 1966-69, a sum of Rs 15.96 crores had been spent on 3.27 lakh scholarships to the scheduled caste students. During 1969-73, Rs 35.38 crores would be spent on providing 6.62 lakh scholarships.

Post-matric scholarships are also awarded to every eligible applicant belonging to the scheduled tribes. The number of such scholarships given during the First, Second and Third Plan periods was 8,494, 25,592 and 60,058 respectively. The expenditure rose from Rs 42 lakhs during the First Plan period to Rs 2.63 crores in the Third Plan. During 1966-69, Rs 3.11 crores were spent on awarding 65,676 scholarships. During 1969-73, Rs 7.15 crores would be spent on 1,28,000 scholarships to the scheduled tribes.

Pre-Examination Training Centres

Fourteen pre-examination training centres have been set up in the country to impart coaching to the scheduled caste and scheduled tribe candidates appearing in various competitive examinations for entry into the State and Central services, including IAS, IPS and allied services, and services in public sector undertakings. So far 954 candidates appearing in IAS/IPS and allied services have been given training of whom 296 candidates have been finally selected for employment in these services. In addition, a large number of candidates have been able to enter State and Central Government subordinate services.

Tribal Development Blocks

The tribal development blocks scheme is an area development concept focussed on the intensive development of areas pre-dominantly inhabited by the tribal people. There are at present 492 tribal development blocks in the country.

Assistance for Co-operatives

Recognising the fact that the co-operative movement has a vital role to play in the elimination of the exploiters of the weaker sections, especially in the tribal areas, a net-work of co-operative societies —forest labour, multi-purpose, labour contract and construction, and marketing societies and apex co-operative organisations—has been organised with governmental assistance. In order to co-ordinate the activities of the tribal apex co-operative organisations, a co-ordination committee of these institutions has also been set up by the Department of Social Welfare.

Tribal Research Institutes

There are at present eleven tribal research institutes in the country. The working of these institutes was recently reviewed by a Study Team of the Planning Commission. The Study Team has made various recommendations aimed at bringing about better organisation and functioning of these institutes. The recommendations are at present under the consideration of the Government.

State Sector Schemes

The State sector programme for which Central assistance is now given in the shape of block grants and loans can be divided into three main groups, namely, education, economic uplift, and health, housing and other schemes. The particulars of schemes undertaken in each group may be enumerated as below:—

Education

(i) Pre-matric scholarships and stipends
(ii) Exemption from tuition and examination fees
(iii) Provision of educational equipments
(iv) Provision of mid-day meals
(v) Setting up of Ashram schools (basic type residential schools)
(vi) Grants for the construction of school and hostel buildings.

Economic Development

(i) Provision of land and irrigation
(ii) Supply of bullocks, agricultural implements, seeds and manure
(iii) Development of cottage industries

(iv) Development of communications
(v) Co-operation
(vi) Colonisation of shifting cultivators
(vii) Supply of poultry, sheep, pigs and goats.

Health, Housing and Others

(i) Medical facilities
(ii) Drinking water supply schemes
(iii) Provision of houses and house-sites
(iv) Provision of legal aid
(v) Grants to non-official agencies working at State level.

RELIEF AND REHABILITATION

The year 1971 will remain a memorable one in the history of rehabilitation. In that year refugees numbering about 10 million poured into India from East Bengal in the wake of repression by the military junta of West Pakistan and the atrocities committed by the Pakistani armed forces there. The magnitude of the problem can be gauged from the fact that out of the 132 members of the United Nations, the individual population of 84 nations is less than the number of refugees who came to India in 1971. No other nation in the world has had to face a problem of this magnitude at any time in history. This colossal influx imposed an unprecedented strain on the financial and administrative resources of the country. The Government of India decided to give succour to the refugees on humanitarian grounds. The administrative machinery of the Central Government and the State Governments concerned was geared up to handle the problem. About 1,200 camps/reception centres were established for accommodating the refugees. Arrangements were made for the provision and distribution of foodstuffs, drinking water supply and medical attention. A population ranging from four to ten million was looked after for a period of about eight months. Additional resources of the order of Rs 360 crores were mobilised to finance the operations.

From the very beginning it was made clear that the Government of India was looking after the refugees on humanitarian grounds and that the relief to such refugees was really the responsibility of the international community. It was also made clear that the Governments of various countries should use their influence for creating conditions in East Bengal which would be conducive to the safe return of the refugees to their homeland as early as possible.

In response to an appeal by the Secretary-General of the United Nations, offers of aid were received from various UN agencies. The United Nations High Commissioner for Refugees posted a representative at New Delhi to act as a focal point for the aid received from various sources. The total amount of aid offered was about Rs 200 crores. The actual aid received up to 28 March 1972 was about Rs 128 crores.

With the liberation of Bangladesh, an organised programme for the repatriation of refugees was put into operation from 1 January 1972. Repatriation was completed within a period of three months and practically all the refugees returned to their homeland.

The refugees were given at the time of repatriation all necessary facilities in the shape of two weeks' ration in kind, journey money, etc. The Government of India also gave the Government of Bangladesh financial aid to enable each refugee to be given on arrival at the destination in Bangladesh a cash allowance of Rs 30 per adult and Rs 15 per child.

Between 25 March 1971 and 25 March 1972, India handled with decisiveness the tremendous tasks of receiving and maintaining 10 million refugees from Bangladesh and of arranging their orderly return to home—a performance which would have done credit to any administration anywhere in the world. As the UN High Commissioner for Refugees remarked: "The whole unprecedented episode of Bangladesh refugees looks now like a nightmare".

India also despatched to Bangladesh such relief supplies received from abroad as became surplus to requirements due to the return of the refugees and for which specific requests were received from Bangladesh.

Prime Minister's National Relief Fund

From November 1947, when the Prime Minister's National Relief Fund was started, up to the end of March 1972, public contribution to the fund amounted to about Rs 5.81 crores. Over Rs 5.32 crores were utilised in providing relief to people affected by natural calamities such as earthquakes, floods, cyclones, droughts, famines and fire. Relief was also given in the early stages to displaced persons from Pakistan.

During the year under review a major portion of the contributions received was earmarked for relief of the refugees from East Bengal and it was passed on to Bangladesh Assistance Committee, New Delhi.

10 MASS COMMUNICATION

The term mass communication stands for extensive dissemination of information, ideas and entertainment by the use of media which science and technology have made available to modern man. The media include the radio, the film, the television, the Press, advertising and the printed word.

BROADCASTING

Broadcasting in its reach and impact constitutes a most powerful medium of mass communication. It is of special importance as a medium of information and education in a vast and developing country like India where the reach of the printed word is not extensive.

Broadcasting in India is a national service developed and operated by the Government of India. All India Radio (also known as Akashvani) operates this service as one of the media units of the Ministry of Information and Broadcasting.

Though broadcasting made its first appearance in India in the early twenties, its career as an organised system began in 1936 with the establishment of All India Radio. Television broadcasting in India is of a more recent origin. It was launched in September 1959 when All India Radio's first Television Centre was commissioned at Delhi.

In 1947, when India attained Independence, the broadcasting network consisted of only six radio stations. With the launching of the country's First Five Year Plan in 1951, the development of broadcasting was brought within the framework of planned progress. At that stage, the primary service on medium-wave was available to only about 21 per cent of the population of the country. By the end of the fifties, 55 per cent of the population had been brought within its reach, while a second grade service on short-wave was available in most parts of the country. During the last ten years, the medium-wave service has been extended to cover 78 per cent of the population. Under the Fourth Plan schemes, AIR's medium-wave coverage is expected to go up to 80 per cent in a couple of years.

The range of listening to AIR has been rapidly widening. This is evident from the rise in the number of broadcasting receiver licences from a meagre 2,75,000 in 1947 to 1,27,72,228* at the end of 1971. To enable All India Radio to reach rural areas, listening is arranged by means of community listening sets installed for public use in a large number of villages, as also over a network of rural listening clubs.

An Audience Research Organisation within AIR keeps a watch on the range and depth of listening to All India Radio's programmes; on the impact of broadcasting on popular opinions and attitudes; and on the emerging patterns of listeners' preferences. The findings of such surveys and analyses provide the necessary feedback to the programme planners in All India Radio.

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* For circle-wise and receiver-type break-up, please see Table 10.1.

TABLE 10.1

NUMBER OF BROADCAST RECEIVER LICENCES IN FORCE
(As on 31 December 1971)

Name of circle	Domestic	Concessional				Commercial			Possession		Demonstration	Total
		Cheap	Community	School	Hospital	Urban	Rural	Low cost	Dealer	Non-dealer		
Andhra Pradesh ..	7,41,400	1,73,938	6,011	1,982	163	6,660	1,341	389	1,927	187	447	9,34,445
Assam	1,63,493	14,546	3,844	199	4	1,119	209	9	541	20	206	1,84,190
Bihar	3,37,551	59,201	1,282	508	27	3,130	405	258	1,152	99	328	4,03,941
Delhi	3,34,582	1,67,666	108	169	17	8,827	—	—	2,174	88	269	5,13,900
Jammu & Kashmir ..	1,26,117	1,69,250	961	38	1	988	—	—	451	—	172	2,97,978
Gujarat	8,76,387	2,03,272	5,960	778	143	9,227	2,118	1,271	2,519	142	484	11,02,301
Kerala	3,86,928	26,765	4,406	1,345	112	4,121	5,059	93	1,346	36	70	4,30,281
Mysore	6,53,963	77,972	7,031	2,072	53	8,715	2,050	317	1,702	134	220	7,54,229
Maharashtra	19,70,312	1,31,376	29,674	1,999	185	16,443	3,815	327	14,142	1,079	503	21,59,355
Madhya Pradesh ..	4,10,762	61,916	2,751	537	92	4,639	1,425	431	1,725	117	782	4,85,177
Orissa	1,32,605	21,705	933	350	30	1,079	—	—	293	22	146	1,57,163
Punjab	6,96,835	5,10,356	1,794	945	436	8,322	2,532	6,996	3,612	151	527	12,32,506
Rajasthan	3,60,037	1,15,124	1,211	1,541	191	6,355	1,943	1,404	1,546	197	413	4,89,962
Tamil Nadu	10,43,646	1,10,461	19,667	3,151	205	12,293	2,423	312	2,738	554	570	11,96,020
Uttar Pradesh ..	8,38,061	3,69,139	2,905	1,702	210	9,598	1,752	3,897	4,928	119	141	12,32,452
West Bengal	6,28,861	4,73,632	649	637	78	4,564	1,501	402	3,290	84	206	11,13,904
A.P.S.	77,170	7,017	—	—	—	117	—	—	117	—	—	84,421
TOTAL	97,78,710	26,93,336	89,187	17,453	1,947	1,06,197	26,573	16,106	34,203	3,029	5,484	1,27,72,228

The sound broadcast network of all India Radio consists of 40 principal stations, three low-power stations and 24 auxiliary centres. In addition, 30 channels carry a parallel service of popular entertainment called Vividh Bharati. The number of transmitters in use (as on 1 December 1972) is 138, made up of 106 medium-wave and 32 short-wave transmitters.

The principal broadcasting stations of All India Radio are located at Ahmedabad, Allahabad, Bhopal, Bombay, Bangalore, Bhuj, Calcutta, Cuttack, Calicut, Delhi, Dibrugarh, Dharwar, Gauhati, Hyderabad, Indore, Imphal, Jammu, Jaipur, Jullundur, Kurseong, Kohima, Leh, Lucknow, Madras, Mathura, Nagpur, Patna, Poona, Port Blair, Pondicherry, Panaji, Ranchi, Rajkot, Srinagar, Shillong, Silchar, Simla, Tiruchi, Trivandrum and Vijayawada.

The three low-power stations are at Tezu and Passighat (in Arunachal Pradesh) and Aijal (in Mizoram).

The 24 auxiliary relay centres are situated at Agartala, Ajmer, Bhadravati, Bhagalpur, Bikaner, Coimbatore, Cuddapah, Gorakhpur, Gulbarga, Gwalior, Jabalpur, Jeypore, Jodhpur, Parbhani, Raipur, Rampur, Sambalpur, Sangli, Siliguri, Tirunelveli, Trichur, Udaipur, Varanasi and Vishakhapatnam.

The programmes broadcast from All India Radio fall broadly into the following categories:

(i) Regional Programmes are broadcast from different stations in regional languages. While maintaining an underlying national purpose, these programmes are necessarily oriented to the needs of each region fostering and reflecting its culture, aspirations and attainments.

(ii) National Programmes, centrally devised and broadcast from all stations, include programmes of music, plays, features and talks, and those specially designed for occasions of national importance.

(iii) News and Current Affairs Programmes are put out both centrally and from regional stations in all the Indian languages.

(iv) External Services Programmes, put out in Indian and foreign languages, are directed towards listeners in foreign countries and Indians overseas.

(v) Light programmes of music, plays and features are broadcast under Vividh Bharati and its commercial service.

To reach all sections of the people, AIR's programmes in the Home Service are broadcast in 20 principal languages, 22 dialects and as many as 91 tribal languages. In addition, the External Services of AIR beam their programmes to listeners all over the world in 24 languages.

On an average, programmes of the duration of more than 700 hours in the aggregate are broadcast from different stations of AIR daily. Music takes about 43.6 per cent of this time and news about 22.5 per cent. Talks, discussions, plays, features and special items for women, children, farmers, industrial workers, students and other groups occupy the rest of the time. The Vividh Bharati Service makes an additional aggregate of 360 hours a day, bringing the grand total of aggregate hours of broadcasting on AIR to more than a thousand hours a day. A fuller and more precise idea of the programme composition can be had from the following analysis for the year 1971:

TABLE 10.2
COMPOSITION OF HOME SERVICES PROGRAMMES

Type of programme	Duration		Approximate percentage
	Hrs.	Mts.	
Classical vocal	21,657	33	8.6
Classical instrumental	20,175	30½	8.0
Folk vocal	7,013	01	2.8
Folk instrumental	257	08	0.1
Light vocal	25,871	41	10.2
Light instrumental	2,571	30½	1.0
Devotional music	12,211	42	4.8
Film music	14,017	11	5.5
Western music	6,657	02½	2.6
Talks, discussions, etc. ..	15,814	39½	6.2
Drama	10,182	29	4.0
News	56,823	31	22.5
Religious	827	28	0.3
Children	3,634	23	1.4
Women	3,727	06	1.5
Rural	15,661	28	6.2
Industrial	4,004	38	1.6
Armed forces	4,484	56	1.8
Tribal areas	4,469	09	1.8
Educational	6,249	17	2.5
Publicity	4,276	13	1.7
Others	12,463	29	4.9
TOTAL	2,53,051	09	100.0
Vividh Bharati	1,29,252	24	
GRAND TOTAL	3,82,303	33	

The principal ingredients of AIR's programme output are: Music, Spoken Word, Dramas, Features, News and Current Affairs, Commentaries and Discussions, Vividh Bharati and its Commercial Service, Farm and Home Broadcasts, Programmes for Special Audiences (like Youth, Women, Children, Industrial Workers and Tribal Population) and Programmes for Overseas Listeners broadcast on the External Services.

MUSIC

Broadcasting marked the beginning of an epoch in the history of Indian music. Before its advent, in many parts of the country the classical music had been largely the preserve of the princely courts or the very limited elite class. With the emergence of the radio, there began a process of 'democratisation' leading to an unprecedented interest in the forms and styles of India's ancient musical tradition. This upsurge of interest in its turn engendered a keener appreciation of the subtleties of this great art and a desire to study and practise it.

A major step towards popularising classical music was the starting in 1952 of a weekly National Programme of Music which has been on the air ever since and has presented to a nation-wide audience the leading exponents of the art.

Once every year AIR organises a week-long festival of music (Radio Sangeet Sammelan), which provides listeners an opportunity to enjoy the renderings of noted vocalists and instrumentalists in the country. To encourage and build up younger talent, an annual competition is held before the festival.

AIR's National Orchestra (Vadya-Vrinda) represents the first serious attempt at developing a balanced ensemble of instruments suited to the requirements of the Indian music.

NEWS AND CURRENT AFFAIRS

Through its central and regional news bulletins, commentaries and discussions on current affairs, the News Services Division of AIR provides accurate, objective, speedy and comprehensive coverage of news to listeners at home and abroad. It notices significant developments and major trends in political, economic, social, cultural and scientific fields. It also gives due importance to sports activities and to news emanating from rural areas. Besides news, the Division broadcasts Parliamentary commentaries, background and interpretative talks on major events of the day and discussions on live issues bringing out various facets of the picture which are not possible to be noticed in the news bulletins.

Besides the normal news-gathering channels, a network of 56 full-time correspondents (including two abroad) and 75 part-time correspondents (including five abroad) continuously feed AIR's national and regional bulletins.

The output of news from AIR has been gradually rising. At present as many as 230 bulletins are broadcast every day round-the-clock. Of these, 175 bulletins are broadcast in the Home Services—83 bulletins in 18 languages from Delhi and 92 bulletins in 18 languages and 33 tribal dialects from regional stations. As many as 55 bulletins in 21 languages are broadcast daily in the External Services. Since August 1971, according to a rearrangement of bulletins under the "News on the Hour" scheme, listeners can tune in to news every hour from 6.00 a.m. to midnight, except at 10.00 p.m. when there is no bulletin.

Apart from news bulletins, topical commentaries broadcast both in English and Hindi also form important daily fixed-points. These are 'Spotlight' in English and its Hindi counterpart 'Samayiki'. These commentaries seek to interpret news on topical developments at home and abroad. When Parliament is in session, a daily ten-minute commentary in both English and Hindi reviewing the day's proceedings is an important fixed-point. A sound-picture of important developments in the economic, social, cultural and other fields is given in the English Newsreel and Hindi Samachar Darshan programmes. These are presented in the form of actuality recordings supported by explanatory narration and eye-witness accounts. There are three editions of Radio Newsreel in English and three in Hindi every week. One newsreel a week is devoted to sports.

Every Sunday, a discussion programme entitled "Current Affairs" takes up for consideration a topic which had been in the news during the week.

Apart from these regular fixed-point topical broadcasts, special arrangements are made to meet situations that arise in the country from time to time.

EXTERNAL SERVICES

AIR made its first broadcast to listeners outside India on 1 October 1939. Today, AIR broadcasts in 24 languages for about 51 hours daily round-the-clock, reaching listeners in widely scattered areas of the world.

The External Services in the Indian languages are directed to Indians abroad, the object being to entertain them and to keep them in touch with events and developments in India.

Besides news and commentaries, various other methods of presentation such as talks, discussions, interviews, radio-reports and feature programmes are employed. Indian music, particularly light, folk and instrumental, as also traditional classical music, forms a substan-

The Corporation earned profits in the very first two years of its existence. In 1969-70 the gross profit was Rs 48.70 lakhs and in 1970-71 Rs 26.22 lakhs. In 1970-71 the Corporation sold 30,698 quintals of seeds of improved varieties of wheat, gram, paddy, barley, guar, oats, sunflower, pulses, jute, arhar, etc.

AGRO-INDUSTRIES CORPORATIONS

In order to accelerate the development of efficient agriculture by ensuring prompt and adequate supply of inputs like farm machinery and improved implements, and through processing and storage of agricultural produce and to promote such other activities, agro-industries corporations have been set up in all the States except Meghalaya and Nagaland. The Central Government and the State Governments concerned have subscribed their share capital on 51:49 basis. Under a hire-purchase scheme, the corporations had distributed tractors and agricultural machinery worth Rs 21.86 crores to the farmers up to 31 March 1972.

AGRICULTURAL REFINANCE CORPORATION

The Agricultural Refinance Corporation was set up in 1963 for granting medium term and long term credit by way of refinance or otherwise for the development of agriculture, animal husbandry, dairy farming, pisciculture and poultry farming.

Assistance from the Corporation is available for financing: (i) reclamation and preparation of land, so that facilities for irrigation in particular are fully utilised; (ii) development of special crops such as arecanut, coconut, cashewnut, cardamom, coffee, tea and rubber; (iii) development of mechanised farming, use of electricity through tubewells, pump sets, etc., and (iv) development of animal husbandry, dairy farming, pisciculture (including co-operative fisheries) and poultry farming.

Till 21 May 1972, the Corporation had sanctioned 663 development schemes costing about Rs 391.99 crores (including ARC's commitment of Rs 298 crores). This includes development of minor irrigation (Rs 271.06 crores), land reclamation (Rs 59.53 crores) and development of plantation crops, fisheries, poultry, animal husbandry, storage and other schemes (Rs 61.40 crores).

AGRICULTURAL MARKETING

The Directorate of Marketing and Inspection carries out various schemes for: (a) grading and standardisation of agricultural commodities, (b) regulation of markets and market practices, (c) marketing research and surveys, (d) training of personnel in agricultural marketing, and (e) market extension. It also looks after the administration of Fruit Products Order, 1955 and Cold Storage Order, 1964.

Grading and Standardisation

The main commodities graded for internal consumption include vegetable oils, ghee, cream, butter, cotton, egg, wheat flour, rice, potatoes, gur, honey and ground spices. The value of the commodities graded during April-December 1971 for internal consumption was Rs 67 crores.

The Central Agmark Laboratory at Nagpur and eleven regional Agmark laboratories at Guntur, Madras, Cochin, Kanpur, Rajkot, Calcutta, Bombay, Ghaziabad, Jamnagar, Bangalore and Patna provide adequate laboratory facilities for fixing grade standards for new commodities and revising old grade standards where necessary. Five more laboratories are being set up at Tuticorin, Virudunagar, Mangalore, Alleppey and Kozhikode (Calicut).

With a view to ensuring an adequate return to the farmer for the quality of his produce, 411 grading units for grading farm produce were functioning at the end of October 1971. The value of produce graded at the farmer's level during 1971-72 was Rs 80 crores. A special scheme for grading of kapas at producer's level is in operation in 22 centres spread over different States. Compulsory grading before export is also done for 38 agricultural commodities. The value of commodities graded for export during 1971-72 was Rs 97.9 crores.

Regulation of Markets

Regulation of markets is a State subject. The Directorate of Marketing and Inspection renders guidance and assistance to the States in framing market legislation and in its enforcement. Except Assam, Meghalaya, Nagaland and Jammu and Kashmir, all the States have passed legislation for market regulation. The Union Territories of Andaman and Nicobar Islands, Laccadive, Minicoy and Amindivi Islands, Pondicherry, Dadra and Nagar Haveli, Mizoram and Arunachal Pradesh have yet to adopt market legislation. The number of regulated markets in the country by June 1972 stood at 2,754. The Directorate is actively involved in a project with a Central outlay of Rs 2 crores for the development of regulated markets particularly in the backward States.

Market Research and Survey

The Market Research and Survey Wing of the Directorate carries out countrywide marketing surveys for important agricultural, horticultural and livestock commodities. During 1971-72, 315 regulated markets were surveyed.

The Market Extension Wing of the Directorate in collaboration with the State marketing departments organises effective services for the dissemination of information regarding marketing services, regulatory measures, handling and storage of agricultural produce, etc., among the producers, traders and consumers.

A Central Agmark Research and Training Institute is being established at Nagpur with UNDP assistance for improving technological research in marketing and for training of technicians.

Administration of Fruit Products and Cold Storage Orders

Under the Fruit Products Order, 1955, the Directorate grants licences for the manufacture and sale of fruit and vegetable products and enforces quality control on the products. It also guides the fruit and vegetable product industry to grow on sound scientific lines.

Under the Cold Storage Order, 1964, all cold storages with a capacity of 8.5 cubic metres or more storing food articles have to get licenses from the Agricultural Marketing Advisor to the Government of India.

The number of licences issued under the Food Products Order was 1,194 by the end of 1971 and the number of licences under the Cold Storage Order stood at 1,330 at the end of March 1972.

AGRICULTURAL EDUCATION

There has been a tremendous expansion in agricultural education in the country. The total enrolment of students for agricultural and animal sciences has gone up 16 times since 1960. At the end of August 1972 there were 93 agricultural institutions in the country having about 13,000 students on their rolls.

There are now 19 agricultural universities. The first agricultural university in India was opened in 1960 at Pant Nagar in Uttar Pradesh.

RESEARCH

The Indian Council of Agricultural Research spearheads farm research in the country. At present 23 research institutes/laboratories function under the Council†. In addition there are 8 soil conservation research, demonstration and training centres under it.

Research schemes in progress include those on dry land agriculture, soil and water management, the co-ordinated agronomic experiment scheme and animal husbandry.

A central soil salinity research institute has been established at Karnal. A Bibliography of the Charactertistics and Management of Salt Affected Soils in India has recently been published by the Agricultural Research Communication Centre at Karnal. The volume contains 700 references to research papers published on saline soils between 1893 and 1972.

AGRICULTURAL LABOUR

Distribution of Land to the Landless Labourers

In almost all the States rules have been framed to provide that in the allotment of Government fallow and waste lands, the landless labourers should be given priority and among them those belonging to the scheduled castes and scheduled tribes should be given preference.

Efforts are being made by the State Governments to distribute all the available Government waste lands as quickly as possible to the landless agriculturists. So far, 5.7 million hectares of waste lands have been distributed by the various States and Union Territories which comes to nearly 4.5 per cent of the total cropped area in the country.

Agricultural Labour Enquiry

The first agricultural labour enquiry was conducted in 1950-51 in 800 villages covering a sample of 11,000 agricultural labour families. The reports of the enquiry were published in 1954-55. The second enquiry was conducted in 1956-57 in 3,600 villages and data on employment, unemployment, wages and earnings, income, expenditure, indebtedness and consumption were collected from about 28,560 sample agricultural labour households. One of the main objects of the enquiry was to assess the impact of development schemes undertaken during the First Plan on the condition of agricultural labourers. The report of the second enquiry was published in 1960.

Rural Labour Enquiry

In the course of this enquiry, which was conducted during 1963-65 through the agency of the National Sample Survey, data were collected on consumption, expenditure, income, employment, unemployment, earnings and indebtedness of rural labour households (including agricultural labour households).

Minimum Wage Fixation

One of the protective measures to improve the income of agricultural labourers is the implementation of the Minimum Wages Act, 1948 which *inter alia* applies to employment in agriculture. Under this legislation minimum wages for agricultural workers have been fixed in all the States (except Jammu and Kashmir) and Union Territories; in Tamil Nadu and Maharashtra such wages have so far been fixed only in some specified areas. The Central Government have also fixed minimum wages for workers in certain agricultural institutions, military farms and archaeological gardens.

NATIONAL COMMISSION ON AGRICULTURE

A National Commission on Agriculture was set up in 1970 to enquire into the progress, problems and potential of Indian agriculture. So far it has submitted interim reports on many subjects including fertilizer distribution, some aspects of agricultural research, extension and training, and credit services for small and marginal farmers and agricultural labourers.

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† For details please refer to the chapter "Scientific Research".

LAND REFORM

Higher agricultural output and social justice to the tiller of the soil are the twin objectives of Indian planning in agriculture. The Directive Principle embodied in article 39 of the Constitution lays down that the ownership and control of the material resources of the community are to be so distributed as best to subserve the common good and prevent concentration of wealth and means of production in a few hands to the detriment of the community. The agrarian structure* which independent India inherited from the past was semi-feudal in character with intermediary tenures super-imposed on the farmers over substantial areas and with heavy concentration of ownership and cultivation of land. For ameliorating the conditions of small farmers and agricultural labourers, who constitute the bulk of the rural population, agrarian transformation has figured prominently in the Plan objectives and the land policy and programmes of the Central and State Governments.

PLAN OBJECTIVES

The First Plan recognised that the pattern of land ownership and cultivation was a fundamental issue in national development and set out a broad outline of the policy to be followed by the States. The policy was elaborated in the Second Plan and the objectives aimed at were: (i) to remove such impediments in the way of agricultural production as arose from the character of the agrarian structure and to create conditions for evolving as speedily as possible an agrarian economy with high levels of efficiency and productivity; and (ii) to establish an egalitarian society and eliminate social inequalities. The measures recommended related to: (a) abolition of intermediary tenures; (b) tenancy reforms including regulation of rents, security of tenure and enabling the tenants to become owners; (c) ceiling on land holdings; (d) consolidation of holdings; and (e) agrarian reorganisation.

The Third Plan envisaged the implementation of policies evolved during the Second Plan and embodied in legislation on the various aspects of land reforms undertaken by the States in pursuance of the accepted policies. In the Fourth Plan, suggestions have been made for reorientation of the land policy, having regard to the technological developments in agriculture and social requirements of the time and for review of the provisions in the existing legislation and measures for their expeditious implementation.

Under the Constitution, the main responsibility for enactment of land legislation and its implementation is that of the State Governments. The land policy laid down in the Five Year Plans is in the nature of a broad common approach which each State pursues taking into account local conditions and needs.

Considerable progress has been made in several directions in a number of States in enactment of the requisite legislation and its implementation. There has been appreciable progress towards the goal of "land to the tiller" as a result of the measures taken by the State Governments.

There have, however, been gaps in legislation and defects in implementation. To review the progress of land reform measures, to identify weaknesses and gaps in the land laws and their implementation and to review the land policy in the context of technological developments in agriculture and current social requirements, a Central Land Reforms Committee has been set up under the chairmanship of the Union Minister of Agriculture. There have also been special conferences of Chief Ministers of all the States and Union Territories in November 1969, September 1970, April 1972 and July 1972. Some of the important issues discussed by the conferences related to the urgency of undertaking effective measures for complete security of tenure for tenants and share-croppers and redistribution of land with a view to ensuring that the benefits of the new strategy in agriculture, extension of irrigation facilities and supply of improved seeds, fertilizers, insecticides and cheaper credit to cultivators, are made available to larger sections of the people, and avoiding any agrarian tension and conflict.

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* For a brief account of the genesis and growth of the agrarian problem, see Chapter XXI in "India 1958".

ABOLITION OF INTERMEDIARIES

Intermediary tenures like zamindaris, talukdaris, jagirs and inams used to be prevalent in about 40 per cent of the area of the country before Independence. The abolition of these intermediary tenures has almost been completed and an estimated two crore farmers have been brought in direct contact with the Government and enabled to become owners of land. A considerable area of cultivable wastelands and private forests belonging to intermediaries has been vested in the state. It has facilitated distribution of 5.77 million hectares to the landless agriculturists. The main problems now engaging the attention of the State Governments are the abolition of some remnants of intermediary tenures such as religious and charitable inams which still exist in some States, bringing about uniformity in the rights of tenants who have come in direct contact with the state and rationalisation of assessment payable by them and building up of effective land revenue and land reform agencies in the former zamindari areas.

TENANCY REFORMS

Even after the abolition of intermediary tenures, tenancy continued on a considerable scale in ryotwari areas and sub-tenancies in former zamindari areas. Measures have been taken in various States for conferment of security of tenure, fixation of fair rent and eventually for bringing the tenants into direct contact with the state.† The progress made in implementation of tenancy reforms was reviewed by conferences of Chief Ministers of States and Union Territories held in November 1969 and again in September 1970 which recommended that the right of resumption by the landowner from his tenants should be further restricted and in respect of non-resumable areas measures should be adopted for bringing the tenants into direct contact with the state.

CEILING ON HOLDINGS

Legislation imposing limits on the land area which a person or family may hold or in future acquire has been enacted in most of the States. These provisions have also, by and large, been brought into force and are at different stages of implementation. The provisions under these Acts relating to the level of ceiling, the unit of application of ceiling (whether the land is to be held by each individual member of the family or as aggregate area by the family as a whole), transfers and exemptions vary considerably from State to State. In the country as a whole, about 10.75 lakh hectares (26.9 lakh acres) have so far been declared surplus out of which 5 lakh hectares (12.5 lakh acres) have been distributed.

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† For details please see Chapter XVI of "India 1971-72".

The programme and the progress of ceiling on holdings was reviewed at the Chief Ministers' conference held in November 1969 and it was recommended that the provisions relating to the level of ceilings, transfers and exemptions had to be revised in the light of the technological developments in agriculture and the social requirements. As a measure of direct attack on rural poverty and prevention of agrarian tension, it was considered necessary that the expanded programme of employment generation in the rural areas should be supplemented by redistributing the means of production in favour of the rural poor, in part by providing the self-employed with the wherewithal to achieve greater productivity from land and also through a programme of land distribution. The entire range of problems relating to ceilings was, thereafter, considered by the Chief Ministers at the conferences held in September 1970, April 1972 and July 1972. The Chief Ministers also considered the recommendations made by the Central Land Reforms Committee and other committees specially set up for reviewing ceiling on holdings.

The existing levels of ceiling and units of application of ceiling (indicating whether the ceiling limit is applicable to the land held by each individual landholder or to the aggregate area held by all members of a family) in various States are given in Table 14.8.

TABLE 14.8
CEILING ON HOLDINGS

State/Union Territory	Level of ceiling (acres)	Unit of application
Andhra Pradesh	27 to 324	Landholder
Assam*	25	Landholder
Bihar	10 to 30	Individual member of landholder's family
Gujarat	19 to 132	All members of family**
Haryana	27 to 100	Landholder
Himachal Pradesh	†	Landholder
Jammu & Kashmir	22¾	Landholder
Kerala*	12 to 15	All members of family**
Madhya Pradesh	25 to 75	Individual member of landholder's family
Maharashtra	18 to 126	Landholder
Manipur	25	All members of family**
Mysore	27 to 216	All members of family**
Orissa	20 to 80	Landholder
Punjab	27 to 100	Landholder
Rajasthan	22 to 336	All members of family**
Tamil Nadu	12 to 60	All members of family**
Tripura	25 to 75	All members of family**
Uttar Pradesh	40 to 80	Landholder
West Bengal*	12.4 to 17.3	All members of family**
Delhi	24 to 60	All members of family**
Mahe	15 to 36	All members of family**

* Ceiling as lowered by recent legislation.

** Family defined as husband, wife and their minor children.

† 30 acres in district Chamba and land assessed to Rs 125 in other districts.

CONSOLIDATION OF HOLDINGS

To consolidate scattered holdings of a landholder in compact blocks and restrain further fragmentation of sub-holdings, legislation has been enacted by the State Governments with the exception of the Andhra area of Andhra Pradesh, Kerala, Orissa and Tamil Nadu.

The laws of Gujarat, Madhya Pradesh and West Bengal provide for consolidation on a voluntary basis on application by the landholders. In other States the law provides for compulsory consolidation.

In Haryana and Punjab the consolidation of holdings has almost been completed. Some progress has been made in Uttar Pradesh, Gujarat, Himachal Pradesh, Madhya Pradesh, Maharashtra, Mysore, Rajasthan and Delhi. By 1969, about 340 lakh hectares had been consolidated in the country. The State Plans have provided for over Rs 28 crores for consolidation of holdings in the Fourth Plan.

CHIEF MINISTERS' CONFERENCE

The recommendations of the Chief Ministers' conference on ceiling on agricultural holdings held in New Delhi on 23 July 1972 are as follows:

Level of Ceiling

(i) The best category of land in a State with assured irrigation and capable of yielding at least two crops a year should have ceiling within the range of 10 to 18 acres, taking into account the fertility of soil and other conditions.

Allowance may be made for land irrigated from private sources and capable of growing at least two crops in a year by equating 1.25 acres of such land with 1 acre of land irrigated from public sources and capable of growing at least two crops in a year. The ceiling for such land irrigated from private sources shall not, however, exceed 18 acres.

The term 'irrigation from private sources' shall mean irrigation from tubewell or lift irrigation from a perennial water source operated by diesel and/or electric power.

There will be no reclassification of land falling within the categories referred to in clauses (ii) and (iii) below for the purpose of the ceiling law consequent upon the completion of a private irrigation scheme in future.

(ii) In the case of land having assured irrigation for only one crop in a year, the ceiling shall not exceed 27 acres.

(iii) For all other types of land the ceiling shall not exceed 54 acres. In areas where there is potential for sinking tubewells, the ceiling for dry lands may be kept below 54 acres at the discretion of the State Government.

(iv) In special cases like the desert areas and hilly areas, the ceiling for category (iii) may have to be relaxed. The State Governments may discuss specific cases with the Ministry of Agriculture before formulating their ceiling laws.

(v) In the case of owners with holdings consisting of different types of land, the total holdings after converting the better categories of land into the lowest category shall not exceed 54 acres.

Unit of Application of Ceiling

(i) The unit of application of ceiling shall be a family of five members, the term 'family' being defined so as to include husband, wife and their minor children. Where the number of members in the family exceeds five, additional land may be allowed for each member in excess of five in such a manner that the total area admissible to the family does not exceed twice the ceiling limit for a family of five members. The ceiling will apply to the aggregate area held by all the members of the family.

(ii) Where both the husband and wife hold lands in their own names, the two will have rights in the properties within the ceiling in proportion to the value of the land held by each before the application of ceiling.

(iii) Every major child will be treated as a separate unit for the purpose of application of ceiling.

It should be ensured that there is no discrimination between major children governed by systems of personal laws. The Ministry of Law and Justice will examine the question and give appropriate advice.

Retrospective Effect

The amended ceiling laws should be given retrospective effect from a date not later than 24 January 1971. A specific provision should be made in the ceiling law making it clear that the onus of providing the bonafide nature of any transfer of land made after that date will be on the transferor.

Exemptions

(i) The exemptions in favour of plantations of tea, coffee, rubber, cardamom and cocoa should continue;

(ii) Lands held by the Bhoodan Yagnya Committee, Co-operative Banks, Nationalised Banks, Central or State Governments and local bodies should continue to enjoy exemption. Similarly, land held by industrial or commercial undertakings for non-agricultural purposes should be exempted from the ceiling law;

(iii) In the case of registered co-operative farming societies exemption may be granted with the stipulation that while computing the ceiling area for a member his share in the co-operative society will be taken into account along with his other lands;

(iv) Lands held by Agricultural Universities, Agricultural Colleges, Agricultural Schools and Research Institutions should be exempted from the ceiling law;

(v) State Governments may in their discretion, grant exemption to the existing religious, charitable and educational trusts of a public nature. The institutions or trusts will not be exempted from the operation of tenancy laws and all the tillers of the land should be brought in direct relationship with the trusts or institutions to the exclusion of all intermediary interests.

No exemption should be allowed to private trusts of any kind;

(vi) In the case of existing Gowshalas of a public nature and existing stud farms, the State Governments may take a decision in consultation with the Ministry of Agriculture;

(vii) No exemption should be allowed in the case of sugarcane farms. However, for the purpose of research and development, sugarcane factories may be permitted to retain an area not exceeding 100 acres;

(viii) For the purpose of ceiling the existing orchards may be treated as dry land and no additional land should be allowed to be retained as recommended earlier. Coconut and arecanut gardens, banana orchards and vineyards will not be treated as orchards. When surplus orchard land vesting in Government is distributed, the assignees should be required to maintain the orchard intact; and

(ix) All other existing exemptions including that in respect of lands given as gallantry award should be withdrawn.

Distribution of Surplus Land

While distributing surplus land, priority should be given to the landless agricultural workers particularly those belonging to the scheduled castes and scheduled tribes.

New Ceiling Laws

The amending ceiling laws should be included in the ninth schedule to the Constitution and be enacted by 31 December 1972.

Implementation

Implementation will be the responsibility of the State Governments. They would set up non-official bodies at appropriate levels and place competent official organisation in order to administer the ceiling legislation. The concurrence of the Central Government will be obtained in respect of any incidental departure from the guidelines necessitated by the special conditions prevailing in any State or Union Territory.

ANIMAL HUSBANDRY

The development programmes of animal husbandry have a three-fold objective, namely, to increase the supply of protective foods, to provide draught power for farm operations and to improve the output of certain products of commercial importance such as wool and hides. The combination of crop production with livestock raising enables fuller utilisation of farm by-products, conservation of soil fertility, increase in income and fuller employment. For animal husbandry, the outlay in the Fourth Plan is about Rs 94 crores.

Table 14.9 shows the number of livestock and poultry in the country according to the quin-quennial censuses of 1956, 1961 and 1966.

TABLE 14.9
LIVESTOCK AND POULTRY

(*in crores*)

Description	1956 census	1961 census	1966 census
Livestock			
1. Cattle	15.9	17.55	17.61
2. Buffaloes	4.5	5.12	5.29
3. Sheep	3.9	4.02	4.20
4. Goats	5.5	6.09	6.46
5. Horses and ponies	0.1	0.13	0.11
6. Other livestock*	0.7	0.72	0.72
TOTAL LIVESTOCK	30.6	33.63	34.39
Poultry	9.5	11.4	11.5

* Comprises mules, donkeys, camels and pigs.

CATTLE DEVELOPMENT

The salient features of cattle development programmes are: selective breeding in recognised breeding tracts, increase in milk production among the draught breeds, up-grading of non-descript with recognised dairy breeds and cross-breeding with exotic breeds in hilly and other areas having facilities for rearing high yielding milch animals.

With the object of increasing milk production, particularly in the milk shed areas of large dairy plants, intensive cattle development (ICD) projects were started from 1964-65. There were 52 ICD projects and 529 key-village blocks during 1971-72.

FODDER DEVELOPMENT

Increasing attention is being devoted to feed and fodder development in ICD project areas and key-village blocks in various States. The setting up of seed production farms picked up in the States during 1971-72. Seven regional forage and demonstration stations are being set up at Kalyani (West Bengal), Hissar (Haryana), Dhamrod (Gujarat), Shehama (J&K), Namdipally (Andhra Pradesh), Alamadhi (Tamil Nadu) and Suratgarh (Rajasthan) during the Fourth Plan.

POULTRY DEVELOPMENT

Poultry farming has grown to be a commercial enterprise during the last decade. The co-ordinated poultry breeding programme taken up at regional poultry farms in Bombay, Bangalore and Bhubaneswar has resulted in the production of genetically superior stock.

Other measures taken for the development of poultry include setting up of intensive egg and poultry production-*cum*-marketing centres, which have created an impact in the areas of operation by providing full-time occupation to a large number of people. Against the Fourth Plan target of 33 centres, 24 have already been taken up.

The scientific poultry breeding programme initiated at selected State Government farms has started yielding results. The extension organisations in the States are providing the required technical knowhow to the farmers. The poultry feed situation has eased to a considerable extent. Large number of poultry feed manufacturing centres have been set up both in the private and public sectors and this has facilitated the availability of balanced poultry feed.

Efforts are being made to encourage broiler production in the country. Two poultry dressing plants at Poona and Chandigarh, with a daily capacity of 8,000 and 4,800 birds respectively, have initiated a number of extension programmes. Besides, there are 15 small poultry dressing plants in the States, each with a capacity to handle about 2,000 broilers a day.

SHEEP DEVELOPMENT

The work at the large sheep breeding farm being set up at Hissar in collaboration with the Government of Australia is progressing satisfactorily. Large sheep breeding farms are also being set up under the Centrally sponsored sector in the States of Andhra Pradesh, Mysore and Jammu and Kashmir. Sites for establishment of three more such farms in Uttar Pradesh, Rajasthan and Bihar have been finalised.

The programme of sheep shearing, wool grading and marketing taken up in eight States with the assistance of UNDP continues to make progress. In order to provide for exotic germplasm requirements for the sheep improvement work in the States, 2,570 Rambouillet sheep from the USA and 3,019 Merino sheep from the USSR were imported during 1971-72.

PIGGERY DEVELOPMENT

During 1971-72, one more bacon factory at Aligarh went into commercial production in addition to the 4 factories already running at Haringhatta(West Bengal), Koothatukulam (Kerala), Borivli (Maharashtra) and Gannavaram (Andhra Pradesh). The bacon factories at Alwar (Rajasthan) and Ranchi (Bihar) have also been commissioned. The pork plant at Kharar (Punjab) has started production.

DAIRY AND MILK SUPPLY

The various dairy projects included in the Five Year Plans have a two-fold objective of providing remunerative market for producers and assured supply of milk to consumers at a reasonable price.

The number of dairy plants in operation during 1971-72 went up to 123 comprising 69 liquid milk plants, 10 milk product factories and 44 pilot milk schemes/rural dairy centres. In addition, 26 dairy projects are under various stages of implementation.

During 1971-72, the average daily through-put of milk of all plants was about 24 lakh litres. The milk product factories manufactured about 50 tonnes of milk powder per day including infant milk food as against 45 tonnes daily in the preceding year. The quantity of table butter and ghee manufactured by these plants was 40 tonnes per day as against 35 tonnes per day in the preceding year.

A major dairy programme has been undertaken in the Fourth Plan in co-operation with the World Food Programme. The World Food Programme will supply during the five year project period (1970-71 to 1974-75) 1,26,000 tonnes of dried skimmed milk and 42,000 tonnes of butter oil in a phased programme. The dried milk when reconstituted into liquid milk will generate funds worth about Rs 95.40 crores. These funds will be used for increasing milk processing facilities in the public sector dairies.

FORESTRY

Forests constitute one of the most important and basic natural resources occupying an area of 75.03 million hectares (1969-70) and account for approximately 23 per cent of the total land area of the country. The National Forest Policy, revised in 1952, lays down that the area under forests be steadily raised to 33.3 per cent of the total geographical area, the proportion being 60 per cent in the Himalayas, the Deccan and other mountainous tracts and 20 per cent in the plains.

Table 14.10 shows the classification of area under forests in 1960-61 and 1967-68 to 1969-70.

TABLE 14.10
AREA UNDER FORESTS

(million hectares)

Description	1960–61	1967–68†	1968–69†	1969–70†
1. *From point of view of exploitation*				
a) Exploitable (Forests in use)	46.59	44.27	45.54	45.58
b) Potentially exploitable	10.02	13.57	12.81	14.76
c) Others	10.27	17.45	16.42	14.69
TOTAL	68.96a	75.29	74.77	75.03
2. *By ownership*				
a) State	65.24	71.71	71.43	71.17
b) Corporate bodies	2.29	2.24	2.08	2.48
c) Private Individuals	1.43	1.34	1.26	1.38
TOTAL	68.96	75.29	74.77	75.03
3. *By legal status*				
a) Reserved	31.61	35.40	35.60	38.07
b) Protected	24.06	24.74	24.73	24.45
c) Unclassed	11.21	12.62	11.49	12.51
TOTAL	68.96a	75.29*	74.77**	75.03
4. *By composition*				
a) Coniferous	4.43	4.46	3.41	4.18
b) Non-coniferous (Broad leaved)	64.53	70.34	17.36	70.85
Sal	11.35	11.74	11.87	11.30
Teak	8.75	9.75	9.62	7.34
Misc.	44.43	48.85	49.87	52.21
TOTAL (a)+(b)	68.96	75.29††	74.77	75.03

† Provisional.

a Includes 2.08 million hectares for which details are not available.

* Includes 2.53 million hectares for which details are not available.

†† Includes 0.49 million hectares for which details are not available.

** Includes 2.95 million hectares for which details are not available.

Notes:—1. Decline in forest area in 1968–69 is due to deforestation in Assam and Gujarat.

2. The decline in area under teak forests is due mainly to reclassification of composition of mixed forests in Madhya Pradesh.

PRODUCTION

Annual recorded production of industrial and fuelwood together with the royalty received by the State forest departments during 1960-61 and 1967-68 to 1969-70 is indicated in Table 14.11.

TABLE 14.11
PRODUCTION OF INDUSTRIAL AND FUELWOOD

Year	Quantity (Million cubic metres in terms of round wood)			Value** (Rs crores)
	Industrial wood	Fuelwood (including wood for charcoal)	Total	
1960–61	5.43	11.64	17.07	48.5
1967–68*	8.73	12.65	21.38	74.4
1968–69*	9.60	11.73	21.33	81.5
1969–70*	8.89	13.27	22.16	88.5

* Provisional.

** Relates to royalty received by State forest departments. Actual market value of the forest product is estimated to be very high.

MINOR PRODUCTS

Forests are also a source of a number of useful minor forest products like bamboos and canes, kendu leaves, grass and fodder, gums, resins, tanning materials, medicinal plants, essential oils, dyes, flosses, honey, lac, etc., which play an important role in the life and economy of the forest folk who are completely dependent on them. Most of the minor forest products are used as raw material for cottage industries and also serve as valuable articles of export. Table 14.12 gives the royalty received by State forest departments in respect of all minor forest products during 1960-61 and 1967-68 to 1969-70.

TABLE 14.12
MINOR FOREST PRODUCTS AND ROYALTY

(*Rs crores*)

Year	Bamboos	Other minor forest products	Total
1960–61	1.7	9.4	11.1
1967–68	3.2	29.0	32.2
1968–69*	3.8	32.7	36.5
1969–70*	4.6	31.5	36.1

* Provisional.

FORESTRY DEVELOPMENT

The creation of man-made forests has been accepted as a dynamic programme which will ultimately lead the country to self sufficiency in industrial wood. A vigorous pursuit of this policy resulted in the creation of 1.78 million hectares of plantations during the period 1951-72 at a cost of about Rs 73.6 crores. In addition, efforts are being directed towards increasing productivity of the forests by natural regeneration of economically valuable species like teak, sal, rosewood, deodar, etc.

IMPORTANT SCHEMES

In the Central sector the important schemes in operation include Forest Research Institute and Colleges, Pre-investment Survey of Forest Resources and Logging Training Centres Project.

Forest Research Institute and Colleges

The Forest Research Institute and Colleges at Dehra Dun is one of the leading centres of forestry education and research in the world. In addition to normal research programmes, the Forest Research Institute and Colleges had 29 research schemes, 5 co-ordinated research schemes and 7 construction work schemes.

Pre-Investment Survey of Forest Resources

This project which commenced in 1965 as UNDP/FAO /Government of India project is now continuing as a Government of India scheme in the Central sector. This project investigates by stages the surplus forest resources in the country and reports upon the economic availability of raw materials for feeding various wood-based industries. A provision of Rs 160 lakhs has been made under the Fourth Plan for conducting surveys in an area of 85,000 sq. km in selected States. During 1971-72, field work has been completed in an area of 17,610 sq. km in Jammu and Kashmir (Chenab), Uttar Pradesh (Jamuna catchment), Bihar, Maharashtra and Madhya Pradesh.

Logging Training Centres Project

This project came into commission with UNDP/FAO assistance from August 1965 and concluded as an aided project on 31 August 1969. This project is, however, being continued during the Fourth Plan as a Government of India project. The aim of the project is to train forest officers and field executives of State Governments and forest contractors on logging, planning and efficiency studies with a view to obtaining higher timber yields from the forest areas under exploitation. During the Fourth Plan a provision of Rs 35 lakhs has been made for this project. Since the commencement of the project in 1965, 1,302 forest personnel have been trained.

FISHERIES

The production of fish in 1971 was 18.45 lakh tonnes as against the previous year's level of 17.46 lakh tonnes. The production of marine fish rose from 10.75 lakh tonnes to 11.55 lakh tonnes while that of inland fish increased from 6.71 lakh tonnes to 6.90 lakh tonnes.

The foreign exchange earnings from exports of marine products have shown a rise of over 70 per cent during the last three years. The estimated value of the exports of marine products in 1971-72 was Rs 44.55 crores as against Rs 35.07 crores in 1970-71. The sea-food items, thus, claim a significant position among India's non-traditional exports.

FISHING HARBOURS

Work on the construction of fishing harbours continued in Bombay, Tuticorin (Tamil Nadu), Vizhinjam (Kerala), Karwar (Mysore) and Port Blair (Andaman & Nicobar). Preliminary work for a fishing harbour at Cochin costing Rs 2.72 crores and at Roychowk (West Bengal) costing Rs 1.51 crores has commenced. Plans and estimates for a fishing harbour at Visakhapatnam have been drawn up. Investigations were being carried out for preparing a project report for a fishing harbour at Paradeep.

MARINE FISHING

The programme of mechanisation of fishing craft, which has hitherto been implemented mainly through the State Plan schemes, is receiving support on an increasing scale from the financing institutions. Integrated fisheries projects in the co-operative sector have been formulated by several States and 12 projects with an estimated outlay of Rs 6.5 crores have been approved by the Agriculture Refinance Corporation. With the addition of 955 small mechanised boats during 1971-72, the total number of mechanised boats in the country by the end of March 1972 was placed at 10,698. Besides these, about 60 large vessels were in operation at the end of 1971-72.

Till March 1972, nine vessels of 17.5 metres_overall length were added to the exploratory fleet of the Deep Sea and Off-shore Fishing Organisation. The organisation set up two additional bases, one in Calcutta and the other at Port Blair. Preliminary arrangements for the establishment of an exploratory base at Kandla have also been made. The UNDP-assisted scheme of pelagic fisheries investigation to locate and estimate resources of mackerel and sardine in the off-shore and deep sea areas off the south-west coast became operational in February 1971.

INLAND FISHERIES

The basic programme in the inland fisheries sector constitutes production of quality fish seed. The Fourth Plan has set a target of 1,153 hectares of additional nursery area. During the first three years of the Plan ended March 1972, about 900 hectares of nursery area was constructed.

FISHERIES TRAINING

Training of fisheries administrative personnel is carried out at the Central Institute of Fisheries Education, Bombay, the Regional Training Centres at Agra and Hyderabad and at the Inland Fisheries Training Unit attached to the Central Inland Fisheries Research Institute, Barrackpore.

PROCESSING AND MARKETING

As in the past, the Central Fisheries Corporation procured fish in various States for supply to Calcutta. Measures are being taken to strengthen the Corporation and step up supplies. The trade agreement concluded with Bangladesh on 28 March 1972 provides for the import of fresh fish valued at Rs 9 crores from that country annually. The Central Fisheries Corporation will be the sole importer of fish from Bangladesh.

15 COMMUNITY DEVELOPMENT AND CO-OPERATION

COMMUNITY DEVELOPMENT

The aim of the community development programme is to bring about an integrated development of rural India, covering the social, cultural and economic aspects of the community life. The basic objective is to secure the fullest development of available material and human resources on an area basis and thereby raise the rural community to higher levels of living with the active participation and as much as possible on the initiative of the people themselves. Agriculture, the mainstay of about 70 per cent of the rural population, receives the highest priority in the programme. Other activities include improvement of communications, health, sanitation, housing, education, rural employment, women's and children's welfare and cottage and small-scale industries.

PROGRAMME PATTERN

The community development programme was launched on 2 October 1952 in 55 selected projects, each project covering an area of about 1,300 sq. km with about 300 villages and a population of about three lakhs. The pattern was revised from 1 April 1958. According to the revised pattern, a community development block now generally covers 100 villages with an area of about 400-500 sq. km and a population of 60,000 to 70,000. The blocks have two active stages of operation, stage I of five years followed by stage II of another five years. At the end of ten years, the blocks enter post-stage II phase. For implementing the community development programme in the blocks, a schematic budget provision of Rs 12 lakhs for stage I and Rs 5 lakhs for stage II was to be made. Provision of funds for the blocks remained mainly the responsibility of the Central Government till the end of the Third Plan period. But from the beginning of the Fourth Plan, *i.e.*, from April 1969, Central assistance to the States for schemes in the State plan sector, including the community development programme, is being given in the shape of block grants and block loans and not on a schematic basis. Thus the financial arrangements for the blocks have become the sole responsibility of the States.

COVERAGE

At the beginning of the Fourth Plan there were 5,265 community development blocks in the country. Following reorganisation in many States, the number had come down to 4,893 on 2 April 1971. The total includes 492 tribal development blocks.

Table 15.1 gives details of the coverage and State-wise distribution of the community development blocks.

ADVISORY BODY

To advise the Government on the twin programmes of community development and Panchayati Raj, a Joint Consultative Council on Community Development and Panchayati Raj was constituted in December 1971. Till then there were two separate councils—one each for community development and Panchayati Raj.

TABLE 15.1
COVERAGE AND DISTRIBUTION OF COMMUNITY DEVELOPMENT BLOCKS

(As on 2 April 1971

	State/Union Territory	No. of allotted blocks	Population covered (lakhs)	Villages covered ('00)	Area covered ('00 sq. km)
1.	Andhra Pradesh	324	334	271	2,749
2.	Assam	139	111	208	996
3.	Bihar	587	452	677	1,739
4.	Gujarat	218	194	186	1,870
5.	Haryana	82	70	71	436
6.	Himachal Pradesh	69	45	117	448
7.	Jammu & Kashmir	73	32	66	1,233
8.	Kerala	143	162	16	387
9.	Madhya Pradesh	457	309	704	4,431
10.	Maharashtra	425	328	359	3,066
11.	Manipur	14	6.7	19	223
12.	Meghalaya	24	7.7	49	224
13.	Mysore	175	217	264	1,920
14.	Nagaland	21	4	8	165
15.	Orissa	314	174	465	1,558
16.	Punjab	116	91	129	617
17.	Rajasthan	232	189	322	3,423
18.	Tamil Nadu	374	303	141	1,302
19.	Tripura	17	9.4	49	105
20.	Uttar Pradesh	678	690	1,126	2,936
21.	West Bengal	335	301	385	874
22.	Arunachal Pradesh	43	3.4	22	814
23.	Andaman & Nicobar Islands	5	0.6	4	83
24.	Chandigarh	1	0.2	NA*	NA
25.	Dadra & Nagar Haveli	2	0.6	1	5
26.	Delhi	5	3.0	3	15
27.	Pondicherry	4	3.7	4	5
28.	Goa, Daman & Diu	12	5.5	2.5	37
29.	Laccadive, Minicoy & Amindivi Islands	4	NA	NA	NA
	ALL-INDIA	4,893	4,046	5,669	31,661

* NA denotes precise information is not available.

FINANCE

People's Contribution

People's contribution in the first three Plans was Rs 25.1 crores, Rs 77.3 crores and Rs 48.9 crores respectively. It was Rs 4.5 crores during 1966-67, Rs 2 crores during 1967-68, Rs 2.2 crores during 1968-69, Rs 1.8 crores in 1969-70 and Rs 2.2 crores in 1970-71. There has been a steady fall in voluntary contributions mainly due to the fall in Government expenditure on community works and amenities, programmes which attract public contributions, and the increased taxation by the Panchayati Raj bodies during the recent years.

Expenditure Under the Plans

Expenditure on community development during the First and Second Plans amounted to Rs. 233.1 crores and during the Third Plan to Rs 267.32 crores. The figures for 1967-68, 1968-69 and 1969-70 were Rs 30.47 crores, Rs 20.81 crores and Rs 18.8 crores respectively. The expenditure in 1970-71 was about Rs 22.68 crores; the expenditure in 1971-72 was expected to be Rs 25.97 crores, and an outlay of Rs 21.47 crores has been approved for 1972-73.

During the Fourth Plan, the Department of Community Development is entrusted with the implementation of a number of Central and Centrally-sponsored schemes which entail a total outlay of Rs 115.20 crores.

ORGANISATION

The Ministry of Agriculture (Department of Community Development) has been concerned with major questions of policy relating to the community development programme and formulation of a broad pattern of expenditure to be incurred in the blocks. The executive responsibility for the programme vests in the State Governments.

A senior administrative officer, namely, the Development Commissioner is in charge of the community development programme in every State. He also co-ordinates the policies and programmes of different State departments connected with rural development. However, in some States there is an integrated department of agricultural production and rural development in the charge of a Secretary called the Agricultural Production Commissioner. He is in charge of agriculture in its wider sense, including community development, Panchayati Raj and co-operation.

The statutory Zila Parishads are responsible for the co-ordination and implementation of the programme in the districts. The Parishads consist of elected representatives of the people, including the presidents of the block Panchayat Samitis, MPs and MLAs of the concerned district.

At the block level, the Panchayat Samiti is in charge of the programme. Its members include elected Sarpanches (presidents of the village Panchayats) and a few co-opted persons representing women, scheduled castes and scheduled tribes. The administrative personnel consisting of a Block Development Officer and eight Extension Officers who are experts in agriculture, co-operation, animal husbandry, etc., work under the direction of the Samiti. Voluntary associate organisations like the youth clubs, farmers' forums and Mahila Mandals, supplement the work of the Panchayats. At the village level, while the Panchayat is in overall control of the programme helped by associate organisations, the Gram Sevak acts as a multipurpose extension agent having about ten villages in his charge.

SPECIAL PROGRAMMES

Rural Manpower Programme

The Rural Manpower Programme seeks to provide additional employment to agricultural workers, especially the landless, during the slack seasons through a works programme based on community action to create community assets.

It covered 998 community development blocks on 31 March 1965. Owing to limitations of resources it has not been possible to cover additional areas during the last few years. Presently, the emphasis is on consolidation of the programme in the existing blocks.

From 1 April 1969 the programme has been transferred to the State sector. The State Governments have the option to continue the programme as a State plan scheme. The Governments of Andhra Pradesh, Haryana, Himachal Pradesh, Kerala, Manipur, Mysore, Orissa, Punjab, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal and the Union Territory of Pondicherry continued the programme during 1970-71 and provided a total outlay of Rs 1.74 crores generating 42 lakh mandays of employment.

Crash Scheme for Rural Employment

The Crash Scheme for Rural Employment which was introduced in 1971-72 as a non-Plan Central sector scheme with an outlay of Rs 50 crores for that year is being continued during 1972-73 as a Central sector plan scheme with an outlay of Rs 100 crores for the remaining two years of the Fourth Plan (1972-73 and 1973-74).

The main objective of this all-India scheme is to generate additional employment in each district through a network of rural projects of various kinds which are labour-intensive, productive of durable assets and integrated to over-all district plans. The projects that may be undertaken under the scheme may relate to road building, reclamation and development of land, drainage, flood protection and anti-waterlogging, water conservation, minor irrigation, soil conservation, afforestation, construction of additional class rooms for primary school buildings and certain special repairs of existing assets with a view to making them durable and useful.

Among the rural unemployed preference is given to such of them as belong to families without even a single adult employed member. Where it is not possible to adhere to this principle, a person who is not likely to find employment elsewhere is given preference over those who are likely to find one.

According to the reports received from the State Governments and Union Territories the total expenditure incurred during 1971-72 was about Rs 32.37 crores resulting in the generation of 808.17 lakh mandays of employment.

Drought Prone Areas Programme

Another scheme designed to provide relief to agricultural labourers in chronically drought affected areas is the Drought Prone Area Programme (formerly known as the Rural Works Programme). It was started in 1970-71 in the non-plan Central sector with an outlay of Rs 100 crores for the Fourth Five Year Plan period. But from 1972-73 it has been included in the Central sector plan with an outlay of Rs 70 crores for the remaining two years of the programme. The expenditure in 1970-71 was Rs 6.76 crores and in 1971-72 about Rs 24 crores.

It is expected to provide employment in the relevant working season of the year to about 25,000 to 30,000 persons for every one crore rupees of expenditure. Fifty-four chronically drought prone districts of the country have been identified for the implementation of the programme, with emphasis on the construction of civil works of a permanent nature as would contribute to the mitigation, if not the total eradication, of the scarcity conditions in the areas.

Prime Minister's Drought Relief Fund

The Prime Minister's Drought Relief Fund was set up in November 1966 to mobilise resources for the relief of distressed persons in drought-stricken areas. The approved purposes now include assistance to the victims of other natural calamities.

Contributions to the fund qualify for exemption from income-tax under Section 88 of the Income Tax Act.

Disbursements are made with the personal approval of the Prime Minister. The amount disbursed since the establishment of the fund totals Rs 1.78 crores, of which Rs 1.63 crores was sanctioned for relief operations and Rs 0.15 crores for protective works. Non-official voluntary effort is promoted, though the aid is, as a rule, channelled through official agencies.

Wells Construction Programme

It is a Centrally sponsored programme and seeks to provide simple source of drinking water in the deficient villages. It was known as the Local Development Works Programme in the Third Plan. It has now been classified as a State sector plan in the Fourth Plan.

Preference is given to scarcity-affected, backward or predominantly tribal areas. During the Third Plan, 1,64,506 wells/hand-pumps were provided with the help of a Central grant of Rs 20.75 crores and public contribution of Rs 12.76 crores. During 1966-67, 1967-68 and 1968-69 Central grants aggregating Rs 8.38 crores were released to the different States and 72,247 wells/hand-pumps were provided. The total Fourth Plan outlay for the States/Union Territories under this programme is estimated at Rs 27.49 crores and the outlay for 1971-72 was Rs 5.44 crores.

Applied Nutrition Programme

The Applied Nutrition Programme, a Centrally sponsored programme and carried out in collaboration with UNICEF, FAO and WHO, is intended to educate the rural people in improved nutrition. It also seeks to promote the production and consumption of protective foods like fruits, vegetables, fish and poultry. The programme specially aims at securing needed nutritional supplements for children below 5 years and expectant and nursing mothers.

By the end of 1971-72 the programme had covered 1,024 blocks. Progress has been achieved particularly in horticulture, poultry and pisciculture in different States. Thirty-one special applied nutrition blocks were set up in the scarcity-affected areas of Bihar, Gujarat, Madhya Pradesh, Mysore, Orissa and Rajasthan with the assistance from voluntary agencies abroad received through UNICEF.

The Central Government gives Rs 34,000 annually for each block for items which are not included in the State plans but are essential for the success of the programme. The Centre provided Rs 2.20 crores for this purpose in 1971-72 and proposed to give Rs 1.70 crores during 1972-73. The outlay for the Fourth Five Year Plan is Rs 10 crores.

Composite Programme for Women and Pre-school Children

The Composite Programme for Women and Pre-school Children launched in 1969-70 envisages organised activities in nutrition education and allied fields through the existing institutions of Mahila Mandals and Balwadis. The scheme operates in rural areas not covered by the nutrition programme and family and child welfare projects. The programme has five components, three in the Central sector which carry 100 per cent Central assistance and two in the State sector for which funds have to be provided by the States/Union Territories.

In the Fourth Plan an outlay of Rs 3.90 crores has been provided for the three Central sector components.

Pilot Research Project in Growth Centres

This Centrally sponsored scheme has been taken up for implementation during the Fourth Plan with an outlay of Rs 75 lakhs. It aims at evolving a broad research methodology for development of emerging and potential growth centres by providing social and economic overheads in delineated areas in terms of a carefully prepared inventory of local needs. The study is focussed on the identification of a hierarchy of viable rural growth centres and their related communities.

Twenty research and investigation cells have been established under the scheme in different States and Union Territories. Collection of data through field surveys is an important element of the scheme. Based on the findings of these surveys, the cells will prepare action programmes for the creation of infrastructure facilities in the base areas for their development.

OTHER PROGRAMMES

Agriculture

Community development and Panchayati Raj agencies continue to give primacy of attention to agriculture and allied programmes. The block organisation has been geared to this vital task over the years.

The responsibilities include formulation and implementation of field programmes for the development of agriculture, horticulture, animal husbandry, distribution of improved seeds, fertilizers, and pesticides, construction and maintenance of minor irrigation works, bunding and a host of other activities aimed at motivating the farmer for maximising production.

The average distribution per block during 1970-71 was 1,200 quintals of seeds, 14,027 quintals of fertilizers, 108 quintals of pesticides and 118 implements as against 1,180 quintals of seeds, 12,797 quintals of fertilizers, 93 quintals of pesticides and 118 implements during the previous year. Further, 12.5 lakh hectares of cultivated area was improved through bunding and terracing, 26.5 lakh hectares of cultivated area was put under green manure and 8.3 lakh hectares were brought under vegetable cultivation during 1970-71.

Minor Irrigation

The net additional area irrigated through newly constructed minor works decreased slightly from over 15 lakh hectares in 1969-70 to 14 lakh hectares in 1970-71. The average area per block provided with additional irrigation worked out to 308 hectares during 1970-71 as against 348 hectares in the previous year.

Village and Small Industries

In pursuance of the programme for village industries sponsored by the Khadi and Village Industries Commission, an attempt is being made to set up eight industries per block. During the year ended March 1971, 1,281 common facility-*cum*-service workshops were in existence.

Financial assistance for industrial purposes is provided in the shape of loans as well as grants and subsidies. Loans amounting to Rs 1.52 crores were given to 29,631 rural artisans and Rs 7.57 lakhs were given as grants to 4,488 artisans during the year ended March 1971.

Health and Family Planning

Family planning continues to get high priority in the block programmes. A total of 5,132 primary health centres were in existence during 1970-71* and 5,180 family planning centres were functioning in rural (main) centres besides 31,200 sub-centres set up under the health and family planning programmes.

Social Education

The number of adult literacy centres that functioned in the blocks from time to time up to March 1971 was 6.31 lakhs imparting literacy to about 17.55 million adults. The number of new centres started and adults made literate during the year ended March 1971 was 13,100 and 6.06 lakhs respectively as against 27,600 and 16.95 lakhs respectively during the previous year.

There were 54,608 Mahila Mandals existing with a membership of 13.4 lakhs during 1970-71. During 1969-70 the number was 54,924 with a membership of 13.2 lakhs. Over 96,000 youth clubs with a membership of 20.85 lakhs were in existence during 1970-71 as against 99,982 with a membership of 21.54 lakhs during the previous year. The number of social education organisers and Mukhya Sevikas in position in various States/Union Territories was 1,322 and 1,814 respectively on 15 October 1971.

Tribal Development Blocks

To give special attention to tribal areas, a number of tribal development blocks have been set up in areas with concentration of two-thirds or more of tribal population and 492 such blocks are functioning at present. From 1970 the total life of these blocks has been increased from 10 to 15 years by providing for a new stage III during which the Central Government will give special assistance of Rs 10 lakhs per block. A sum of Rs 32.50 crores has been provided for the tribal development blocks during the Fourth Plan period.

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* Figures are based on the total number of blocks reporting progress.

TRAINING

With a view to developing proper understanding of the basic concepts and objectives underlying the community development and Panchayati Raj programmes, training is given at the Composite Training Centres under the administrative control of the various State Governments to officials and non-officials connected with these programmes.

The National Institute of Community Development at Hyderabad functions as an apex institute for providing training in the philosophy and aims of community development and Panchayati Raj to senior officials as well as non-officials working at the policy-making levels and promotes programmes of research in applied social sciences, with particular emphasis on planned change through community development. It also functions as a clearing house of information on community development and Panchayati Raj and provides academic guidance to the training centres in different parts of the country.

ACHIEVEMENTS

Table 15.2 shows the achievements in selected items of activity under the community development programme.

Evaluation

The community development programme is under regular assessment through a feed-back system of periodic reports. An appraisal for the year 1971 has shown appreciable progress as compared to the previous year in the supply of improved seeds, fertilizers and pesticides, preparation of rural compost, bunding and terracing, animal husbandry (except supply of bulls) and the paving of village lanes. However, a decline has been noticed in respect of minor irrigation, land reclamation, adult literacy, renovation of drinking water wells and construction of rural latrines and approach roads.

PANCHAYATI RAJ

Panchayati Raj in India is a three-tier structure of local self-government at the village, block and district levels. The principles for this system were laid down in 1958. Specific powers and functions in the fields of development and local administration have been assigned to the Panchayati Raj institutions.

Panchayati Raj has helped the emergence of new leadership in the rural areas and served as a training ground for higher responsibilities. It has made a significant contribution towards bringing about socio-economic regeneration of the village community and has brought the administrative apparatus closer to the people.

COVERAGE

Panchayati Raj now covers all the States with the exception of Kerala, Madhya Pradesh, Manipur, Meghalaya, Tripura, Jammu and Kashmir, Nagaland and 14 out of 17 districts in Bihar. In the case of Manipur and Tripura, establishment of higher-tier Panchayati Raj system is under consideration. In Madhya Pradesh, Panchayat Samitis (Jan-Pad Panchayats) have been constituted and Zila Parishads are expected to be established soon. In Bihar, higher tiers of Panchayati Raj are expected to be established early, while in Kerala and Jammu and Kashmir legislative measures for setting up higher tiers of Panchayati Raj are expected soon. In Nagaland, there is no Panchayati Raj set-up but the traditional area, range and tribal councils are expected to perform similar functions. The institution of village Panchayats exists in all the Union Territories except Mizoram, Pondicherry and Laccadives, Minicoy and Amindivi Islands. In Arunachal, three-tier system of Panchayati Raj has been introduced. In Delhi

TABLE 15.2
PROGRESS OF C.D. PROGRAMME

Items of activity	Total achievements during		Average achievement per reporting block during	
	1969-70	1970-71 (Provisional)	1969-70	1970-71 (Provisional)
I *Agriculture*				
1. Improved seeds distributed (quintals)	52,16,000	52,49,000	1,180	1,200
2. Chemical fertilizers distributed (quintals)	5,65,90,000	6,13,58,000	12,797	14,027
3. Chemical pesticides distributed (quintals)	4,10,000	4,74,000	93	108
4. Improved implements distributed	5,20,000	4,81,000	118	118
5. Agricultural demonstrations held	3,72,000	3,38,000	84	77
6. New compost pits dug	17,94,000	18,46,000	406	420
II *Land Improvement*				
1. Net additional area likely to be irrigated (hect.)	15,40,000	13,49,000	348	308
2. Land reclaimed (hect.)	3,53,000	2,66,000	80	61
3. Area bunded & terraced (hect.)	10,15,000	12,54,000	229	287
III *Animal Husbandry*				
1. Improved animals supplied	20,800	18,100	4.7	4.1
2. Improved birds supplied	17,59,000	17,48,000	398	400
3. Animals castrated	31,15,000	32,46,000	704	742
4. Animals artificially inseminated	15,02,000	17,78,000	340	407
IV *Health and Rural Sanitation*				
1. Rural latrines constructed	45,400	28,500	10	7
2. Pucca drains constructed (metres)	10,64,000	16,54,000	241	378
3. Village lanes paved (sq. metres)	19,75,000	48,40,000	447	997
4. Soakage pits constructed	93,000	77,000	21	18
5. Drinking water wells constructed	19,600	16,800	4.4	3.8
6. Drinking water wells renovated	24,900	17,500	6.1	4.0
V *Social Education*				
1. Adult Literacy Centres started	27,600	13,100	6	3.0
2. Adults made literate	16,95,000	6,06,000	383	138
3. Functional Gram Sahayak camps organised	7,900	3,800	1.8	0.8
4. Leaders trained	2,11,000	1,82,200	48	42
VI *Communications*				
1. New kacha roads constructed (km)	21,100	15,900	4.8	3.6
2. Existing kacha roads improved (km)	40,800	44,100	9.2	10.1
3. Culverts constructed	21,800	14,500	3.6	3.3
VII *Village and Small Industries*				
Value of improved tools and appliances distributed:				
(a) Blacksmithy (Rs)	13,900	13,800	31	32
(b) Carpentry (Rs)	2,99,000	2,15,000	68	49

establishment of higher-tier Panchayati Raj system is under active consideration. In the case of Pondicherry and Laccadives, Minicoy and Amindivi Islands, the establishment of Panchayati Raj is under consideration.

There are at present 2,19,119 village Panchayats in India covering 5,64,307 villages and a population of 37.11 crores. In addition there are 3,339 Panchayat Samitis and 231 Zila Parishads.

ACTIVITIES

The Panchayat, the co-operative and the school are the basic institutions at the village level for carrying out the programme of democratic decentralisation. The elected Panchayat has charge of all development programmes in the area. The co-operative functions in the economic sphere and the village school, which is also a community centre, looks after educational, cultural, recreational and allied fields. Associate organisations such as women and youth organisations, farmers' and artisans' associations functioning in their respective spheres are linked up with the Panchayat in its development activities and are supported in turn by the Panchayat in their work.

With most of the country covered by Panchayati Raj, the emphasis now is on consolidation of these institutions and bringing into sharper focus their role in the rural development effort. Review of the working of the Panchayati Raj bodies for strengthening them at various levels is a continuous process. The States have also reviewed from time to time their own legislative provisions, organisational arrangements and administrative procedures with a view to improving them.

TAXATION

The Panchayati Raj institutions have their own powers of taxation. Table 15.3 shows the tax collections realised by them in the reporting States.

TABLE 15.3
TAX COLLECTIONS BY PR INSTITUTIONS

(*Rs lakhs*)

Year	Zila Parishads	Panchayat Samitis	Panchayats	Total tax collected
1961–66	1,555.57	1,044.49	4,688.11	7,288.17
1966–67	577.31	412.92	1,133.14	2,123.37
1967–68	611.01	407.82	1,128.39	2,147.22
1968–69	726.98	428.30	1,600.43	2,755.71
1969–70	953 06	453.71	2,074.96	3,481.73
1970–71	932.38	1,790.86	2,366.44	5,089.68

NYAYA PANCHAYATS

With a view to provide for a speedy and inexpensive system of justice to the villagers, steps have been taken to establish Nyaya (Judicial) Panchayats or village courts in most of the States. Nyaya Panchayats are already functioning in some of the States.

CO-OPERATION

During the past decade, the co-operative movement* has made great progress especially in the fields of agricultural credit, supply of farm inputs and processing. In the field of marketing also the progress has been commendable.

The value of agricultural produce handled by co-operatives increased from about Rs 175 crores in 1961-62 to nearly Rs 650 crores in

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*For a brief account of the genesis and early growth of the co-operative movement, see Chapter XXII in "India 1962".

1970-71. During the same period the value of chemical fertilizers distributed by the co-operatives increased from Rs 32 crores to Rs 250 crores (estimated). The share of co-operatives in the total production of sugar rose from 1.5 per cent in 1955-56 to about 34 per cent in 1970-71.

It has been estimated that by the end of June 1970 about 309 million persons out of the country's total population of about 540 million were being served by the co-operative movement.

GROWTH OF CO-OPERATIVES

The salient features and operational dimensions of the co-operative movement in India for selected years between 1951-52 and 1969-70 are given in Table 15.4.

TABLE 15.4
GROWTH OF CO-OPERATIVES

	1951-52	1961-62	1966-67	1967-68	1968-69	1969-70
Number of societies (thousands)	186	342	333	326	326	318
Membership of primary societies (lakhs)	137.92	378.36	559.06	553.55	606.96	616.28
Share capital (Rs crores)	49.08	259.69	514.06	586.12	663.33	753.21
Working capital (Rs crores)	306.34	1,534.78	3,186.73	3,681.97	4,472.82	5,158.71

It would be seen that between 1951-52 and 1969-70 the membership of primary societies increased more than four times, the share capital of all co-operatives increased more than fifteen times and their working capital more than sixteen times.

AGRICULTURAL CREDIT

The impact of the new agricultural strategy has generated a vastly increased demand for credit and ancillary services. The All-India Rural Credit Review Committee has estimated the total requirements of short-term credit at Rs 2,000 crores for 1973-74 and those of medium- and long-term credit at Rs 2,000 crores for the entire Fourth Plan period. A study group appointed by the National Credit Council estimated (in 1969) that during 1967-68 30 per cent of the total credit requirements for agriculture was met by institutional credit agencies. During 1969-70, co-operatives, which continue to be the main institutional source for agricultural credit, accounted for 33 per cent and commercial banks for 5.3 per cent. The major emphasis now is on strengthening and expansion of institutional agencies for meeting the growing demand for agricultural credit.

Co-operatives, which were providing about Rs 50 crores as short- and medium-term loans in 1955-56, had increased their lendings to about Rs 541 crores by 1969-70. Similarly, the quantum of long-term loans issued by co-operatives had registered a substantial rise and stood at Rs 513 crores by 1969-70. During that year their membership was about 3 crores and 94 per cent of the villages were covered by them.

The concept of agricultural finance in the co-operative sector, as also in other sectors, has undergone a change in recent years. The earlier concept of production credit or crop loan is now taking the shape of development-oriented agricultural finance considered in terms of the total credit needs of the farmer which include production, development and, to a limited extent, consumption requirements.

The Reserve Bank of India has agreed that medium-term loans up to Rs 2,000 can be provided to members of the co-operatives for dairy and poultry purposes on personal surety basis, *i.e.*, without obtaining a mortgage or a charge on land, provided adequate facilities for marketing of dairy and poultry products exist in an organised manner. The Reserve Bank has also indicated that at least 20 per cent of the outstanding borrowings of the central co-operative banks from the concerned State co-operative banks shall be earmarked for financing small or marginal farmers. Co-operatives may sanction medium-term loans upto Rs 3,500 for minor irrigation purposes (*i.e.*, for sinking of a well and/or installation of a pumpset) and/or for agricultural machinery, without obtaining a mortgage or charge on land, provided the balance of the capital outlay involved is met by the concerned borrower out of his own resources.

Also, the procedures for obtaining encumbrance certificates from the registration offices have been simplified in some States to enable a quicker flow of long-term agricultural credit.

Credit for Small Farmers

In the Small Farmers Development Agencies and Marginal Farmers and Agricultural Labourers areas, financial assistance is being provided in the shape of risk fund and managerial subsidy to strengthen the co-operative credit structure.

The Central Government have set up Small Farmers Development Agencies in 46 districts to identify the problems and needs of small farmers in their areas, prepare appropriate programmes and implement them with the necessary inputs, services and credit. The existing credit institutions would be utilised for this purpose. To stimulate the flow of credit to small farmers these agencies will provide grants to central co-operative banks, primary credit societies and co-operative land development banks for building up special risk funds. Special assistance for managerial and supervisory staff would also be provided by these agencies. In addition, the Central Government have also set up 42 projects for marginal farmers and agricultural labourers. These projects lay special stress on the provision of supplementary occupations and other employment opportunities. In these projects, provision of credit through co-operatives would be stepped up for the under-privileged classes.

A sum of Rs 115 crores has been provided in the Fourth Plan for both the schemes. This is expected to generate institutional support of the order of Rs 300 crores (for providing short-term credit of Rs 100 crores and medium-term and long-term credit of Rs 200 crores).

About 33 per cent of the total short-term and medium-term loans and 25 per cent of long-term loans advanced by co-operatives during 1969-70 in 12 States and 5 Union Territories (for which figures are available) were to small and marginal farmers, tenants, etc. In Andhra Pradesh, Assam, Punjab, Himachal Pradesh and Pondicherry, the short-term and medium-term loans advanced to the above mentioned categories of farmers formed more than 40 per cent of the total loans issued during the year, while in Kerala and Manipur, they constituted more than 80 per cent. In Maharashtra and Gujarat, however, the percentage was lower. The percentage of long-term loans issued to these classes of farmers was low in Gujarat, Bihar, Madhya Pradesh and Rajasthan. In Kerala it was more than 90 per cent and in Tamil Nadu more than 48 per cent.

Credit for Fertilizers

The Reserve Bank has been providing since 1967 credit limits to State co-operative banks for financing the purchase and distribution of chemical fertilizers by the marketing federations or societies. Of late, the commercial banks have been sanctioning fairly sizable limits to the marketing federations societies for the stocking and distribution of fertilizers. With the nationalisation of the major Indian commercial banks, it is expected that the distribution credit needs of fertilizers would be taken care of by them. In the light of these developments, the State co-operative banks, the State marketing federations and the marketing societies have been advised to approach the State Bank of India and its subsidiaries, the nationalised commercial banks and even other commercial banks for the necessary financial help required in connection with the procurement and distribution of fertilizers. The rate of interest charged by the Reserve Bank on limits for fertilizer distribution, which was at Bank Rate till 1971, has been raised to 2 per cent above the Bank Rate from the year 1972 so that accommodation from the Reserve Bank is not cheaper than the one available from commercial banks. The value of fertilizers distributed by co-operatives during 1970-71 was nearly Rs 250 crores. Keeping in view the past performance and the organisational capacity that the co-operatives are likely to build up in the coming years and the steps being taken by them to progressively streamline the distribution channel, it is envisaged that in 1973-74 the co-operative system will be able to distribute fertilizers worth Rs 450 crores.

The Indian Farmers' Fertilizer Co-operative, organised in the co-operative sector, is to set up fertilizer plants to produce ammonia, urea and NPK with foreign exchange assistance from USAID and UK Government credit.

AGRICULTURAL CREDIT SOCIETIES

Agricultural Credit Co-operatives

The agricultural credit co-operatives, which have a three-tier credit structure, consisting of the co-operative banks at the State level, central co-operative banks at the district level and primary agricultural credit societies at the village level, provide short-term and medium-term agricultural credit. The number, membership and financial operations of the State co-operative banks and central co-operative banks and the primary agricultural credit societies for selected years between 1951-52 and 1969-70 are indicated in Tables 15.5, 15.6 and 15.7.

TABLE 15.5
STATE CO-OPERATIVE BANKS

	1951-52	1961-62	1969-70
Number of banks	16	21	25
Membership	23,272	30,468	18,860
Share capital (Rs lakhs)	190	2,126	3,960
Statutory and other reserves (Rs lakhs) ..	236	759	4,322
Deposits (Rs lakhs)	2,118	8,144	23,430
Other borrowings (Rs lakhs) ..	1,127	14,579	30,232
Working capital (Rs lakhs)	3,672	25,609	61,944
Loans advanced during the year (gross) (Rs lakhs)	5,527	25,629	70,708
Loans outstanding (Rs lakhs) ..	2,001	19,651	50,975
Loans overdue (Rs lakhs)	322	810	2,756

TABLE 15.6
CENTRAL CO-OPERATIVE BANKS

	1951-52	1961-62	1969-70
Number of banks	509	377	340
Membership	2,31,318	3,87,740	3,11,505
Share capital (Rs lakhs)	462	4,660	12,792
Statutory and other reserves (Rs lakhs) ..	519	1,389	4,623
Deposits (Rs lakhs)	3,823	12,262	38,171
Other borrowings (Rs lakhs) ..	1,207	16,478	37,194
Working capital (Rs lakhs)	6,011	34,789	92,779
Loans advanced during the year (gross) (Rs lakhs)	10,564	37,986	87,250
Loans outstanding (Rs lakhs) ..	3,591	25,648	73,979
Loans overdue (Rs lakhs)	478	4,006	21,522

TABLE 15.7
PRIMARY AGRICULTURAL CREDIT SOCIETIES*

	1951-52	1961-62	1968-69	1969-70	1970-71 (provisional)
Number of societies	1,07,925	2,15,081	1,67,760	1,62,700	1,62,000
Membership (in lakhs)	47.77	195.72	291.73	297.65	325.52
Share capital (Rs crores)	8.92	68.61	167.31	188.70	—
Deposits (Rs crores)	4.39	17.64	56.84	62.67	69.11
Working capital (Rs crores)	45.22	325.33	812.22	921.64	951.23
Loans advanced during the year (gross) (Rs crores)	24.21	228.31	503.86	540.11	564.38
Loans outstanding (Rs crores)	33.66	256.68	618.75	711.44	—
Loans overdue (Rs crores)	8.52	62.93	214.04	268.25	301.29
Average Per Society					
Membership	44	91	174	183	201
Share capital (Rs)	827	3,190	9,973	11,598	12,324
Deposits (Rs)	408	820	3,388	3,852	4,251
Loans advanced (Rs)	2,243	10,615	30,034	33,196	34,762

* Excluding grain banks.

At the end of 1969-70, out of about 1,63,000 primary agricultural credit societies the active ones numbered 1,44,000 and covered over 85 per cent of the villages and 33 per cent of the rural population. The programme of reorganisation of primary credit societies by amalgamation of two or more societies to form viable units and liquidation of weak and dormant societies is expected to reduce the number of primary credit societies to 1,20,000 viable societies at the end of the Fourth Plan.

Land Development Banks

The land development banks, which provide long-term finance to agriculturists, have two-tier structure in most States with central land development banks at the State level and primary land development banks at the block/tehsil/sub-division/district level. In a few States like Gujarat, Uttar Pradesh, Jammu and Kashmir and Bihar, the unitary structure at the State level operates through branches opened in districts/tehsils. These banks have registered considerable progress in recent years. The total loans advanced to individuals by these banks exceeded Rs 155 crores during 1969-70. They raise resources mainly by floating ordinary debentures in the market, which were of the order of Rs 128 crores during 1970-71. The major investors in these debentures have been the Life Insurance Corporation, State Bank of India, commercial banks, Reserve Bank of India, co-operative banks and Central and State Governments.

SUPPLEMENTARY RURAL CREDIT SOURCES

(i) The Agricultural Refinance Corporation (ARC) supplements the long-term resources of the eligible institutions, *viz.*, land development banks, State co-operative banks and scheduled commercial banks. During 1971-72 (up to 31 March 1972) progress was recorded in the sanctioning of integrated agricultural development projects by the Agricultural Refinance Corporation when 173 additional schemes were sanctioned as against 100 schemes during 1970-71 and 458 schemes during the entire eight year period ended 1970-71.

The total number of schemes sanctioned by the Corporation, excluding those withdrawn, stood at 663 on 21 May 1972 involving financial assistance of Rs 391.99 crores and the Corporation's commitment amounted to Rs 298 crores.

(ii) The Rural Electrification Corporation was set up in 1969 as an autonomous body under the Ministry of Irrigation and Power. This Corporation, apart from other functions, promotes and finances the rural electric co-operatives organised to take up distribution and extension of electricity in their areas of operation.

(iii) The National Co-operative Development Corporation was set up under an Act of Parliament with the object of planning and promoting programmes for the production, processing, storage and marketing of agricultural produce and notified commodities through co-operative societies. The Corporation supports these programmes and has initiated a number of new schemes for which assistance is provided to the State Governments.

NON-AGRICULTURAL CREDIT SOCIETIES

Urban credit is provided by non-agricultural credit societies which include, among others, urban banks and employees' credit societies. These institutions had raised deposits of Rs 255.9 crores by the end of 1969-70 and made gross advances of Rs 409.9 crores to the members.

OTHER CO-OPERATIVES

At the end of June 1970 there were 13,562 primary consumer co-operatives, 383 central wholesale consumer stores and 17 State federations of consumer co-operatives besides the National Co-operative Consumers' Federation. These consumer co-operatives for urban areas now cover all urban centres with a population of over 50,000. The total retail sales of all these consumer co-operatives during the year 1969-70 were about Rs 241 crores.

Marketing and Processing Co-operatives

There has been a marked expansion and diversification of the activities of the co-operative marketing and processing societies. The co-operative marketing structure (excluding sugarcane supply societies) at the end of 1969-70 consisted of the National Agricultural Marketing Federation, 27 State marketing federations, 160 central marketing societies and 3,184 primary marketing societies. The total value of agricultural produce handled by these co-operatives increased from over Rs 175 crores in 1960-61 to over Rs 650 crores in 1970-71. During 1971-72 emphasis was laid on the further strengthening of the co-operative marketing structure, intensification of activities of selected co-operatives in areas with larger potentials for growth and promotion of an integrated marketing system.

The co-operative processing units, numbering 1,744, consist of independent processing units such as sugar factories, spinning mills or units set up as adjuncts to marketing societies like rice mills, oil mills and cotton ginning factories. Sixty-nine co-operative sugar factories which were in production during 1969-70 produced 14 lakh metric tonnes of sugar, which was about 33 per cent of the national production of sugar.

To help the farmers, co-operatives in recent years have been branching out into new lines of activity like production of granular fertilizers, production, processing and distribution of seeds, manufacture and distribution of improved agricultural implements and setting up of agro-service centres.

The value of foodgrains marketed by co-operatives in 1970-71 was Rs 269 crores. Sugar was another most important commodity processed and marketed by co-operatives accounting for about Rs 222 crores in 1970-71. The value of cotton marketed by co-operatives during the same period was of the order of Rs 78 crores. Other important items were oilseeds, fruits and vegetables and plantation crops.

The number, membership and working capital of different types of non-credit co-operative societies as in June 1970 are shown in Table 15. 8.

NAFED

The National Agricultural Co-operative Marketing Federation (NAFED), set up to promote inter-State and export trade of farm products, had a turnover of Rs 1.43 crores in the first category and Rs 3.68 crores in the second category up to the end of December 1971 during 1971-72. Exports were sent to Ceylon, Malaysia, Singapore, Hong Kong, Japan, Belgium, Fiji Islands, Australia, Canada, USA, Mauritius, UK and various African and West Asian countries.

STORAGE CAPACITY

The total storage capacity of the co-operatives in the form of rural godowns at the village and *mandi* town level was 2.8 million tonnes at the end of 1970-71 as against 2.7 million tonnes at the end of the previous year. In addition to this, storage capacity of 2,00,000 tonnes had been constructed by co-operatives with assistance from the Agricultural Refinance Corporation. The NCDC has launched a new scheme involving Rs 15 crores to achieve substantially the Fourth Plan target of two million tonnes of additional storage capacity. Another scheme envisaging an expenditure of Rs 2.5 crores is to give financial assistance in this behalf to 400 co-operative societies in the high-yielding variety programme areas.

By the end of December 1971 there were 69 co-operative cold storages with a total capacity of 99,000 tonnes and 26 more units were under various stages of installation.

CO-OPERATIVE FARMING

The role of co-operative farming in the reconstruction of rural economy was emphasised in the First and Second Plans and essential steps were taken for the development of co-operative farming in the country. The Third Plan contemplated 318 pilot projects, each comprising 10 co-operative farming societies, in selected community development blocks to demonstrate to farmers that by pooling their land, manpower and other resources they could increase agricultural production, develop agro-industries, improve employment opportunities and raise their standard of living.

There were 8,819 co-operative farming societies in the country on 30 June 1970 with a membership of 2,41,315 and covering about 4,75,000 hectares of land. This showed an increase of 676 societies and 21,986 members as compared with the previous year.

The National Co-operative Farming Advisory Board plans and promotes the programme of co-operative farming. In January

TABLE 15.8
NUMBER, MEMBERSHIP AND WORKING CAPITAL OF NON-CREDIT SOCIETIES

Types of society	Number	Membership	Working capital (Rs lakhs)
Marketing societies			
National	1	23	105
State	27	7,211	14,521
Central	160	1,10,048	3,318
Primary	3,184	26,91,196	10,029
Sugarcane supply societies			
State	1	134	329
Central	72	4,500	246
Primary	151*	22,40,567	1,189
Milk unions	144	29,171	1,379
Milk supply societies	10,831	9,18,889	1,050
Farming societies	8,819	2,41,315	1,415
Irrigation societies	1,764	97,618	820
Sugar factories	111	4,79,382	25,357
Cotton ginning and pressing societies	168	1,22,682	930
Other processing societies			
State	2**	8,481	130
Central	—	—	—
Primary	1,403	1,94,757	1,009
Weavers' societies			
National	1	1,246	151
State	22	7,831	1,059
Central	100	9,656	251
Primary	12,219	12,64,735	3,891
Spinning Mills	62	1,44,439	6,347
Other industrial societies			
State	20	4,633	309
Central	132	19,013	412
Primary	34,717	17,42,332	4,037
Consumers' societies			
Wholesale	400	8,91,689	3,834
Primary	13,562	34,04,802	2,299
Housing Societies			
State	17	9,736	8,300
Primary	16,308	11,11,029	22,494
Fishermen's societies			
State	9	5,129	134
Central	53	11,377	225
Primary	4,185	4,42,130	528
Insurance societies	6	13,944	240
Other non-credit societies***	24,017	22,25,832	5.631

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* 4,231 primary societies in Bihar reported for the year 1968–69 have been amalgamated with primary agricultural credit socieites.

** Of which one was reported as central society in 1968–69.

*** Includes data in respect of State, central and primary societies not covered earlier.

1968 the Board recommended that (i) new societies should be organised only in areas having favourable circumstances for growth of the programme; (ii) every society should have a definite programme of total pooling of lands; (iii) joint cultivation must be practised in respect of all lands of the society and (iv) financial assistance should be given only if a society adheres to the principles laid down for the programme.

Most of the States have also set up advisory boards. Co-operative farming wings have been set up in selected extension training centres to train secretaries and managers of co-operatives. These centres also organise orientation courses for extension staff and assist in the organisation of village camps for the existing and prospective members of co-operative farming societies.

TRAINING OF PERSONNEL

The National Co-operative Union of India is responsible for the implementation of the training and education programme in the country at the national level. The Committee for Co-operative Training set up by the above body plans, administers and guides the institutional training arrangements. At present the committee is in overall charge of the Vaikunth Mehta National Institute of Co-operative Management at Poona and 13 other co-operative training colleges.

Training of junior personnel is looked after by the States. This programme is carried out either through the State Co-operative Unions/District Co-operative Unions or the State Government machinery.

16 IRRIGATION AND POWER

Since Independence, the total irrigated area in the country has increased from 2.26 crore hectares to over 3.75 crore hectares. The irrigation potential of the major and medium irrigation projects has more than doubled. About 580 such projects have been taken up since 1951 out of which 361 have already been completed. Power generation which was 20 lakh kw then, has now reached 1.72 lakh kw. Whereas less than 4,000 towns and villages were electrified before 1951, more than 1,12,000 villages and towns are enjoying the benefits of electricity today.

IRRIGATION

The total water potential of India, by way of mean annual river flows, is estimated at 1,67,230 crore cubic metres. Of this, the utilisable resources are estimated at 56,000 crore cubic metres. By 1951, only about 9,500 crore cubic metres had been utilised by the irrigation projects of the pre-Plan period, representing 17 per cent of the estimated utilisable resources or 5.6 per cent of the total annual flow. By 31 March 1970, various major, medium and minor projects enabled the utilisation of nearly 22,200 crore cubic metres of water, *i.e.*, 39 per cent of the utilisable resources.

The possibilities of diverting the normal flow of rivers into irrigation canals have been almost exhausted. The plans for the future development of irrigation, therefore, increasingly aim at impounding by dams the surplus river-flow during monsoon for use in dry weather. In areas unsuitable for flow-irrigation construction of minor irrigation works, such as, tanks and wells, and the installation of water-lifting devices have been planned.

Growth of Irrigation Potential and Utilisation

When India started planned development in 1951, the irrigated area from major and medium irrigation schemes was 97 lakh hectares and from minor schemes 129 lakh hectares, totalling 226 lakh hectares. During the first three Five Year Plans and the subsequent Annual Plans, 533 major and medium irrigation projects were taken up, of which 76 were major projects. By 31 March 1972, *i.e.*, the end of the third year of the Fourth Plan, 361 schemes had been completed and an additional potential of 98 lakh hectares was estimated to have been created. Table below shows the growth of irrigation potential and the corresponding utilisation from major and medium schemes since the advent of planning:

(*lakh hectares*)

TABLE 16.1
GROWTH OF IRRIGATION
(*Major and Medium Schemes*)

Particulars	Pre-Plan	Additional potential at the end of					
		1st Plan	2nd Plan	3rd Plan	1969-70	1970-71	1971-72 (anticipated)
Potential	97	25	46	69	89	92	98
Utilisation	97	15	34	55	74	78	83

Investment during the Plans

The total investment on major and medium irrigation projects up to the end of 1971-72 was Rs 2,407 crores and on flood control and drainage works Rs 256 crores. The Fourth Plan provides an outlay of Rs 953.8 crores for irrigation (major and medium projects), of which Rs 771.4 crores is for continuing schemes, Rs 140.4 crores for new schemes and Rs 42 crores for research, designing, etc.

A ten-year plan for the period 1971-81 to bring an additional 80 lakh hectares under irrigation with an outlay of Rs 2,250 crores has been prepared by the Ministry of Irrigation and Power.

MINOR IRRIGATION

The additional area irrigated by minor irrigation schemes since 1951 to 31 March 1967, was 48 lakh hectares (after allowing for depreciation) raising the pre-Plan figure of 129 lakh hectares to 177 lakh hectares.

The total Fourth Plan public sector outlay for minor irrigation is Rs 511.32 crores, of which the actual expenditure during 1970-71 was Rs 96.30 crores and outlay during 1971-72 was expected to be Rs 105.24 crores. As against the Fourth Plan target of benefiting 72 lakh hectares through minor irrigation, an additional area of 15.8 lakh hectares was expected to be provided with irrigation during 1971-72.

IRRIGATION AND MULTIPURPOSE PROJECTS*

The major irrigation and multipurpose projects are described briefly in the following paragraphs:

Nagarjunasagar (Andhra Pradesh)

The Nagarjunasagar project comprises the construction of a 1,450-metre long masonry dam with 3,415-metre long earthen flanks on the Krishna river near Nandikonda village, about 144 km from Hyderabad, and two canals, one on each side of the river. The 203.2-km long right bank canal, and the 178.6-km long left bank canal, will together irrigate 8.3 lakh hectares. The reservoir will have a gross storage capacity of 1,156 crore cubic metres and its waterspread will be 28,490 hectares. The dam is nearing completion and an irrigation potential of 4.13 lakh hectares was anticipated by 1971-72.

Tungabhadra (Andhra Pradesh and Mysore)

This joint undertaking of the Governments of Andhra Pradesh and Mysore comprises a 2,441-metre long and 49.39-metre high dam on the Tungabhadra river at Mallapuram, about 4.8-km from Hospet town; a 227-km long canal (called the left bank canal) with a power house on the left side; a 349-km long canal (called the low level canal) with two power houses, on the right side and a 196-km long canal (called the high level canal) also on the right side.

The dam was completed in July 1956. The reservoir has a waterspread of 37,800 hectares. The left bank canal and the low level canal will together irrigate nearly 3.32 lakh hectares in Andhra Pradesh and Mysore. The high level canal will, on completion, irrigate 1.85 lakh hectares. There are two power stations on the right side, one below the dam and the other at the tail-end of the 22.5-km long hydel channel at Hampi. Four generating units of 9,000 kw each in the dam power house and four units of the same capacity in the canal power house have been commissioned. A power station has also been constructed below the dam on the left side where three generators of 9,000 kw each have been installed. The low level canal including the hydel channel and its major distributaries and the distribution system and the left bank canal up to 220.5 km and the distribution system have been completed. The bulk of the work on the construction of the high level canal, stage I, has also been completed and work on stage II is progressing. The total irrigation potential created so far is 4.38 lakh hectares and the total installed capacity for power generation is 99 mw.

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* Description of only selected projects is given.

Gandak (Bihar and U.P.)

An agreement on the Gandak irrigation and power project was signed between the Governments of Nepal and India on 4 December 1959. Bihar and Uttar Pradesh are the participating States in the project and Nepal would also derive irrigation and power benefits from it.

The project comprises the following components:

(i) A 747.37-metre long barrage with road-bridge across the river Gandak at Valmikinagar in Bihar.

(ii) Main western canal to irrigate 4.61 lakh hectares of land in the Saran district of Bihar and about 3.08 lakh hectares in the Gorakhpur and Deoria districts of Uttar Pradesh. Another canal will also take off from the western bank to irrigate 16,400 hectares in the Bhairwa district of western Nepal.

(iii) Main eastern canal to irrigate 6.91 lakh hectares of land in the Champaran, Muzaffarpur and Darbhanga districts of Bihar, and 47,000 hectares (gross) in Parasa, Bara and Rautuhat districts of Nepal.

(iv) A power house with an installed capacity of 15 mw at the 14th km of the main western canal in the Nepalese territory, which will be subsequently handed over to Nepal as a gift when the connected power load in Nepal has developed to a firm potential of 10 mw.

The barrage is practically complete and excavation of canals is in progress. The project will improve communications and provide additional employment opportunities and better trade facilities to the people of Nepal and India.

Kosi (Bihar)

The three-unit Kosi scheme consists of:

Unit I — A barrage near Hanumannagar in Nepal and appurtenant works;

Unit II — About 240-km long flood embankments and other protective works; and

Unit III — The Eastern Kosi Canal system.

The barrage and headworks, including the road-bridge, were completed in 1963 and inaugurated on 24 April 1965. The flood embankments were completed in 1959. The embankments on the eastern and western banks of the river have freed an area of about 20,720 sq. km in Bihar and Nepal from the ravages of the Kosi and afforded direct protection to about 61,000 hectares of cultivable land in Nepal and 2.02 lakh hectares in Bihar from recurring submergence. The Eastern Kosi Canal system, taking off from the left bank of the barrage, will irrigate 5.81 lakh hectares in the districts of Purnea and Saharsa in north Bihar.

In addition to the above-mentioned components, the following schemes have been sanctioned as stage II of the project:

(i) *Kosi Power House:* A power station with an installed capacity of 20 mw on the Eastern Kosi Canal, along with connected transmission lines, is under construction. Half of the power generated at the power house will be supplied to Nepal and the other half will be available for use in Bihar.

(ii) *Western Kosi Canal:* This scheme comprises the construction of 112.65-km long main canal, taking off from the right flank of the Kosi barrage, to irrigate 3.25 lakh hectares of land in Darbhanga district of Bihar and 12,120 hectares in Saptari district of Nepal.

(iii) *Rajpur Canal:* This scheme comprises a canal system taking off from the Eastern Kosi Main Canal to irrigate 1.6 lakh hectares in Saharsa and Monghyr districts of Bihar.

(iv) Extension of the eastern flood embankment by 25.76 km and of the western embankment by 4 km. The work has been completed. The extension of the embankment has provided protection to an area of 15,190 hectares of land in the lower reaches of the river from recurring submergence by floods.

Work is in progress on the Kosi Power House and the Rajpur Canal system. The work on the construction of the Western Kosi Canal has also been taken up and will be completed by 1975.

Kakrapara (Gujarat)

This project may be regarded as the first phase of the development of the Tapi valley. The 621-metre long and 14-metre high weir, above the river bed near Kakrapara, 80 km upstream of Surat, was completed in June 1953. Most of the earth work on the canals and distributaries has been completed. The project will irrigate 2.28 lakh hectares in Surat district.

Ukai (Gujarat)

The Ukai multipurpose project envisages the construction of a 4,928-metre long and 68.6-metre high dam across the river Tapi near the village Ukai, 116 km upstream of Surat town; river bed power house and canals on right and left banks. Besides irrigating 1.58 lakh hectares, the project will firm up irrigation planned under the Kakrapara project. A total installed capacity of 300 mw has been proposed under this project. The dam is nearing completion and the project as a whole is to be completed early in the Fifth Plan.

Periyar Valley (Kerala)

This scheme envisages the construction of a 210.9-metre long masonry barrage across the river Periyar near Alwaye in Ernakulam district. The 29-km long main canal will irrigate 56,900 hectares. The construction of the head works, main canal and major length of the branch channels has been completed and the scheme has been partially commissioned.

Tawa (Madhya Pradesh)

The Tawa project envisages the construction of a reservoir across the Tawa river (a tributary of the Narmada river) less than a kilometre downstream of its confluence with its tributary Denwa in Hoshangabad district of Madhya Pradesh. The 1,630.2-metre long dam will be earth-*cum*-masonry type. Two canals, together 196.85 km in length, will take off from the right and left flanks and will provide irrigation facilities to an area of about 3.32 lakh hectares annually. The installed generating capacity under the project would be 20 mw. The project is expected to be completed substantially during the Fourth Plan.

Chambal (Madhya Pradesh and Rajasthan)

The first phase of the project, which is being jointly executed by the Madhya Pradesh and Rajasthan Governments, consisting of the Gandhi Sagar dam, Gandhi Sagar power station, transmission lines, Kota barrage and canals on either side of the barrage, is practically complete.

The Gandhi Sagar dam and the power station with five units have been completed and power generation was started on 19 November 1960. The Kota barrage has also been completed and water for irrigation was released on 20 November 1960. The reservoir formed by the Gandhi Sagar dam has a gross storage capacity of 77,460 lakh cubic metres of water. The canal system will irrigate 4.44 lakh hectares in Rajasthan and Madhya Pradesh.

Work on the second stage of the project, comprising the construction of the Rana Pratap Sagar dam and a power house below it, has also been completed. The dam will provide irrigation facilities to 1.22 lakh hectares of land. Four units in the power house, each of 43,000 kw, have already been commissioned. Work has also been undertaken on the third stage of the project, which comprises the construction of the Jawahar Sagar (Kota) dam and a power station at its toe, which will have three units of 33,000 kw each. On completion, it will produce 60,000 kw of power at 60 per cent load factor. On completion of all the three stages, the project will provide irrigation to 5 66 lakh hectares of land and will have an installed generating capacity of 386 mw.

Girna (Maharashtra)

This project has been completed. It comprises a dam near village Panzan and two weirs near Jamda and Dahigaon across the river Girna in Nasik district. The 963-metre long and 55-metre high dam is of composite type. Canals, 198 km in length, are irrigating an area of about 60,000 hectares.

Purna (Maharashtra)

This multipurpose project envisages the construction of two earthen dams across the river Purna, one 2,922-metre long and 51.36-metre high at village Yeldari and the other 4,658-metre long and 38.25-metre high at Siddeshwar village in Parbhani district. The irrigation component of the project is intended to provide irrigation to 71,110 hectares. The installed generating capacity of the project is 22.5 mw, which has already been commissioned.

Bhadra (Mysore)

This multipurpose project across the river Bhadra in Mysore State, will irrigate 99,000 hectares of land in Shimoga, Chikmagalur, Chitradurga and Bellary districts. It has two power stations with a total installed capacity of 33 mw.

Upper Krishna (Mysore)

The Upper Krishna project stage I consists of Narayanpur dam across the Krishna river and a left bank canal. It will irrigate about four lakh hectares. Provision has also been made for the foundation of the Alamati dam which is proposed to be taken up during the stage II of the project.

Malaprabha (Mysore)

The Malaprabha project envisages the construction of a 154.6-metre long and 44.2-metre high masonry dam across the Malaprabha river, a tributary of Krishna, in Belgaum district of Mysore State. The right bank canal of the project will irrigate 2.07 lakh hectares in Dharwar, Belgaum and Bijapur districts.

Hirakud (Orissa)

The 4,801.2-metre long main Hirakud dam is the world's longest dam. Flanked on both sides by 21 km of dykes, it impounds 810 crore cubic metres of Mahanadi water. The project is divided into two stages. Stage I has been completed and the annual irrigation envisaged is 2.53 lakh hectares in the two districts of Sambalpur and Bolangir of Orissa. The total installed capacity of the power house at Hirakud is 123.20 mw. Power is being supplied to various industrial and metallurgical plants at Hirakud, Rajgangpur, Rourkela, Joda, Brajrajnagar and other places in Orissa besides several towns including Puri, Sambalpur, Hirakud, Sandergarh, Bargarh and Cuttack.

Stage II of the project has also been completed with the installation and commissioning of three generating units of 24 mw each at the Chiplima power house and two generating units of 37.5 mw each at the Hirakud power house bringing the installed capacity of the former to 72 mw, the latter to 198.2 mw and the overall total of the Hirakud project to 270.2 mw.

The Mahanadi delta irrigation scheme is being executed by the Government of Orissa as an adjunct to stage I of the Hirakud dam. It consists of a diversion weir on the Mahanadi to pick up the regulated releases from Hirakud, and remodelling of the existing canal system and weirs on the Mundali and Birupa rivers. On completion, it will irrigate 6.84 lakh hectares in Cuttack and Puri districts. The diversion weir at Mundali and the canals have been completed and an irrigation potential of 3.54 lakh hectares had been created by the end of 1970-71.

Bhakra Nangal (Punjab, Haryana and Rajasthan)

A joint venture of Punjab, Haryana and Rajasthan, the Bhakra Nangal Project is India's biggest multipurpose river valley scheme which has been completed. It consists of a 226-metre high dam across the Sutlej at Bhakra; 29-metre high Nangal dam; 64-km long Nangal hydel channel; two power houses at the Bhakra dam; two power houses on the hydel channel at Ganguwal and Kotla and about 1,104 km of canals and over 3,360 km of distributaries. The live storage capacity of the reservoir created by Bhakra Dam is 7.4 lakh hactare metres.

The Bhakra canal system commands a gross area of about 27.4 lakh hectares of which the cultivable area is 23.7 lakh hectares. Full irrigation potential of 14.6 lakh hectares has already been achieved. The four power houses at Bhakra, Ganguwal and Kotla have a combined installed capacity of 1,204 mw. These include the power house on the right bank of Bhakra which was completed as a separate project. It houses five units of 120 mw each.

Beas (Punjab. Haryana and Rajasthan)

This project, which is a joint venture of the Governments of Punjab, Haryana and Rajasthan, consist of two units, namely, Beas Sutlej Link and Beas Dam at Pong.

The Beas Sutlej Link is principally a power project. It envisages the diversion, in a mean year, of 4.72 lakh hectare metres of Beas waters into Sutlej at the upstream fringe of Bhakra lake. The waters so diverted through the Link shall utilise a drop of about 305 metres at the Sutlej end to generate power. The Link comprises a 61-metre high diversion dam at Pandoh, water conductor system about 37 km long (consisting of two tunnels 12 to 13 km in length and an open hydel channel) and a power plant at Dehar with an installed capacity of four units of 165 mw each with a future provision for two units of similar capacity. The water diverted by the Link shall be used for improvement and extension of irrigation on the existing Bhakra system. The scheme is likely to be completed by the end of the Fourth Plan.

The Beas Dam at Pong is principally an irrigation scheme with a live storage capacity of 6.9 lakh hectare metres. This scheme comprises a 116-metre high earth-*cum*-gravel dam, 5 tunnels each about 9 metre in diameter and a power plant with an installed capacity of 240 mw with future provision for another 60 mw. The dam is likely to be completed in 1973 and will be able to provide perennial irrigation to about 17 lakh hectares in Rajasthan, Punjab and Haryana.

Rajasthan Canal (Rajasthan)

The Rajasthan Canal Project aims to provide irrigation facilities in the north-western region of Rajasthan which is a portion of Thar desert. It envisages the construction of a canal of 518 cusecs capacity taking off from the Harike barrage constructed at the confluence of Sutlej and Beas rivers. The project has been divided into two parts: (a) Rajasthan Feeder: 215 km long, of which the first 178 km lie in Punjab and Haryana and the remaining portion in Rajasthan; and (b) Rajasthan Main Canal: 467 km long lying entirely in Rajasthan.

A major portion of the stored water at Pong Dam across the Beas, expected to be completed in 1973, will be utilised on the Rajasthan Canal.

The project is being executed in two stages. The first stage comprising 215 km of Rajasthan Feeder and 195 km of Rajasthan Main Canal along with the distribution system is expected to be completed in1973-74. Stage II covers construction of the remaining 272 km of the Main Canal along with the distrbituion system and is scheduled for completion in 1978-79.

The work on the Rajasthan Feeder in its entire length of 215 km has been completed while that on the Main Canal is complete up to 128 km including work on branches and distribution in that reach. Work is in progress between 128 km and 195 km of the Main Canal and the distribution system.

With an irrigation intensity of 110 per cent, the project will ultimately provide annually irrigation to about 12.6 lakh hectares in the districts of Bikaner, Shri Ganganagar and Jaisalmer in Rajasthan. An area of 1.82 lakh hectares had been irrigated during 1971-72.

Parambikulam Aliyar (Tamil Nadu and Kerala)

This project is a joint venture of Tamil Nadu and Kerala States. It envisages the integrated development of eight rivers, six on the Anamalai Hills, *viz.*, Nirar, Sholayar, Parambikulam, Tuncadavu, Peruvaripallam and Tekkadi, and two on the plains, *viz.*, Aliyar and Palar, by constructing reservoirs across these rivers and inter-connecting them through tunnels. These tunnels will divert the waters thus impounded to the plains of the Coimbatore district in the Tamil Nadu and Chittur area of Kerala. The project will bring under irrigation about one lakh hectares of land through a series of canals and will have an installed capacity of 185 mw.

Ramganga (Uttar Pradesh)

The river Ramganga, one of the major tributaries of the Ganga, is being harnessed by constructing a 125.6-metre high earth and rock-fill dam, 3.2 km upstream of Kalagarh in Garhwal district and a 72-metre high saddle dam. Power will be generated at the saddle dam. The project will irrigate an area of 5.7 lakh hectares and generate 180 mw of power. It will also reduce the intensity of floods in central Uttar Pradesh. The scheme is expected to be commissioned in 1973-74.

Mayurakshi (West Bengal)

This project is mainly an irrigation scheme though it also includes the installation of a 4,000 kw hydro-electric plant. The first stage of the project was completed in 1951 with the construction of a diversion barrage at Tilpara near Suri, 3.2 km below the dam in West Bengal. The 47.24-metre high and 640-metre long Messanjore dam, now named Canada dam, was completed in June 1955. The Canada dam with a capacity of 6,160 lakh cubic metres of water will provide rabi irrigation for nearly 20,235 hectares. The canals will irrigate 2.47 lakh hectares annually. The first 2,000 kw generating set was commissioned in December 1956 and the second in February 1957.

Farakka (West Bengal)

The problem of silting at the Calcutta port has been engaging the attention of experts for over a century. The only technical solution is to restore the stream flow by the construction of a barrage on the Ganga at Farakka. This envisages the following principal components:

(i) a barrage across the Ganga at Farakka with a rail-*cum*-road bridge;

(ii) a cross regulator across the Bhagirathi at Jangipur above the outfall of the canal; and

(iii) A 42.6-km long feeder canal, taking off upstream of the Bhagirathi, downstream of the Jangipur barrage.

There will be channels at Farakka at the tail end of the feeder canal and at Jangipur barrage to provide for navigation through the canal and across the Jangipur barrage. By the operation of these components, it will be possible to prolong the upland supplies into the Hooghly, thus counteracting the deteriorating effects of the tidal flow.

While the principal objective of the project is the preservation of the Bhagirathi-Hooghly and the port of Calcutta, a number of incidental benefits will also accrue, namely, improvement of the Calcutta city water supply and the drainage of the region and improvements in communications, inland navigation, etc. Work on the Farakka barrage and the Jangipur barrage has since been completed, but the excavation work on the feeder canal is likely to be delayed.

Damodar Valley Corporation (West Bengal and Bihar)

The project comprises four storage dams at Tilaiya, Konar, Maithon and Panchet Hill with hydel power houses of a total designed capacity of 104 mw attached to all the dams except Konar, three thermal power stations at Bokaro, Durgapur and Chandrapura, and extensive power transmission grid and an irrigation barrage at Durgapur with canals and distributaries.

The Tilaiya dam on the river Barakar, with earthen extensions on either side, was completed in 1953. There is a 4,000 kw power house near the dam. The Konar dam was completed in October 1955. The Maithon dam on the river Barakar, which was completed in 1957, stores 13,610 lakh cubic metres of water and the underground hydro-electric station near the dam has a capacity of 60 mw.

Designed primarily for flood control, the Panchet hill dam on river Damodar, completed in December 1959, stores 14,970 lakh cubic metres of water. A 40 mw hydro-electric station, built near the dam, was commissioned in September 1959.

The 692-metre long and 11·58-metre high barrage on river Damodar at Durgapur in West Bengal was opened in August 1955. The operation and maintenance of the barrage and irrigation system was transferred to the Government of West Bengal from 1 April 1964. Nearly 137 km of the main left bank canal have been made navigable.

The Bokaro thermal power station with an installed capacity of 150 mw was commissioned in March 1953. An additional unit of 75 mw has since been added to this station. At Durgapur two units of 75 mw each and one unit of 140 mw have been commissioned. All the three units of 140 mw each at Chandrapura have been commissioned, the first in October 1964, the second in May 1965 and the third in July 1968.

With the help of the storage created by the four dams of the DVC system, the Durgapur barrage is expected to provide irrigation for about 3·7 lakh hectares of land.

CENTRAL ORGANISATIONS

The Central Board of Irrigation and Power, constituted in 1927, is responsible for the initiation of fundamental research in the field of irrigation and power and the co-ordination of the work of 38 research stations established in different parts of the country.

The Central Water and Power Commission (CW&PC) is charged with the responsibility of initiating, co-ordinating and furthering, in consultation with the State Governments concerned, schemes for the control, conservation and utilisation of water resources throughout the country for the purpose of flood control, irrigation, navigation and hydro-power generation. It is also responsible for the schemes of thermal power development and of transmission and utilisation of electrical energy throughout the country.

The CW&PC has undertaken the assessment of surface water resources and their utilisation for major and medium river valley schemes and the co-ordination of the data collected by the Ministries of Agriculture, Health and Transport pertaining to minor irrigation works and domestic and navigational purposes. The ultimate aim is to draw up a balance sheet of water to be utilised for additional benefits in the country.

Water and Power Development Consultancy Services

As an important step in making India's expertise in the field of irrigation and power available to developing countries, an independent organisation called the Water and Power Development Consultancy Services (India) Ltd. was registered under the Companies Act, 1956, on 26 June 1969. The specialised organisations of the Government of India which are the constituents of this company are: Central Water and Power Commission, Geological Survey of India, Meteorological Department and Survey of India. The company provides engineering and related technical consultancy services for development of water resources, irrigation and drainage, electrical power, flood control and water supply projects and procurement, installation, management of construction and related services in connection with the construction of resource development projects. The company also offers services for various types of surveys connected with such projects.

National Projects Construction Corporation

The National Projects Construction Corporation Ltd. was incorporated under the Companies Act in January 1957. The authorised share capital of the Corporation is Rs 3 crores. It has at present a paid-up capital of Rs 2·55 crores contributed by the Central Government and the State Governments of Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Kerala, Madhya Pradesh, Mysore, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal and the Union Territory of Chandigarh. The Corporation undertakes the execution of river valley projects and allied construction works and functions as a contractor and competes in the market with other contracting firms to secure its works. It has in hand execution of works costing about Rs 22·73 crores. The Corporation has successfully completed works costing about Rs 65 crores. Among the major works are the Farakka barrage, Kosi barrage, Gandak barrage, Chandan barrage, Chandan Dam, Hasdeo barrage and Badua Dam.

INLAND NAVIGATION

Some of the multipurpose schemes completed or under construction include inland navigation as one of the objectives. The 137-km long left bank canal of the Damodar Valley Project, from Durgapur to Tribeni, has been designed as irrigation-*cum*-navigational canal. It links the lower Raniganj coalfields with Calcutta *via* the Hooghly. Its utilisation for transport of coal and other commodities is being considered. With the completion of the Hirakud dam and remodelling of the Mahanadi delta canal system, the navigation on the Mahanadi and its canal system has considerably improved as a result of regulated discharge from the Hirakud dam. Preliminary hydrographic surveys of the river, carried out during 1960-61, had revealed that introduction of navigation by shallow draft craft from Cuttack to Dholpur might be possible with proper river conservancy works. With the completion of the Farakka barrage project, inland navigation between the Ganga and the Hooghly *via* the Bhagirathi will also develop.

INDUS WATERS TREATY An Indo-Pakistani Treaty fixing and delimiting the rights and obligations of both the countries with regard to the use of the waters of the Indus rivers system was signed on 19 September 1960 and came into force with retrospective effect from 1 April 1960. In accordance with the provision of this treaty, a permanent Indus Commission representing both the Governments was set up which has so far submitted annual reports for 11 years, the last one relating to the year ending 31 March 1972.

INDO-BANGLADESH RIVERS COMMISSION As a result of agreement arrived at between the Prime Ministers of India and Bangladesh in March 1972, an Indo-Bangladesh Joint Rivers Commission has been established on a permanent basis to carry out a comprehensive survey of the river systems shared by the two countries, to formulate projects concerning both the countries in the fields of flood control and to implement them. The Commission consists of one chairman and three members from each country. The first meeting of the Joint Rivers Commission was held at New Delhi on 25-26 June 1972.

INDO-BANGLADESH POWER CO-ORDINATION BOARD The Governments of India and Bangladesh have decided to establish an Indo-Bangladesh Joint Power Co-ordination Board to examine the feasibility of linking the power grids of Bangladesh with the adjoining areas of India and to ensure co-ordination between the two countries in the matter of power development.

FLOOD CONTROL

The National Flood Control Programme was launched in September 1954, following the disastrous floods in different parts of the country in that year. In the first two years, the programme was devoted mainly to intensive investigations, collection of data and execution of some emergent works. During the Second Plan, flood control measures consisting of embankments, channel improvements, raising the level of villages, etc., were undertaken in the most vulnerable areas. Since the Third Plan, protection measures consisting of storage reservoirs, embankments, etc., which will form part of the comprehensive plan of flood control in different river basins, have been taken up. Attention has also been given to drainage and anti-waterlogging measures. Flood forecasting and warning centres have been set up in some of the most flood-prone river basins.

For laying down policies and for guidance in the co-ordinated implementation of flood control programmes, there are State Flood

Control Boards assisted by Technical Advisory Committees at the State level and River Commissions (Floods) at the inter-State level. The Central Flood Control Board co-ordinates the work of the various State Boards and River Commissions at the national level.

Taking into account the complexity and magnitude of the flood problem in the Brahmaputra Valley and the North Bengal rivers, Flood Control Commissions have been set up by the Governments of Assam and West Bengal for investigating, planning and implementing a comprehensive plan of flood control. These commissions are assisted by boards of consultants in all technical matters. The Government of India have constituted the Brahmaputra Flood Control Board and the North Bengal Flood Control Board with the Union Minister of Irrigation and Power as Chairman to lay down policies, approve schemes and fix priorities. The Ganga Flood Control Commission and the Ganga Flood Control Board have also been constituted by the Centre for the preparation of a comprehensive flood control plan for the Ganga basin and arranging its implementation in a co-ordinated manner through the agency of the States concerned.

Since the commencement of the National Flood Control Programme in 1954, 7,287 km of embankments, 10,150 km of drainage channels, 197 town protection schemes and raising of 4,585 villages had been completed by 31 March 1972 with a total investment of Rs 256 crores. Seven flood forecasting centres at Delhi, Lucknow, Surat, Patna, Jalpaiguri, Gauhati and Bhubaneswar have been set up under the Central sector.

The Fourth Plan outlay for flood control is Rs 138 crores. Out of this, an amount of nearly Rs 70 crores had been spent by 31 March 1972.

Maximum damage during the last 19 years was caused during the floods of 1971. An area of 131 lakh hectares was affected. The total damage was about Rs 628 crores and 1,098 human lives and 12,700 cattle were lost.

Taking into account the experience of floods in recent years, it has been considered necessary to implement expeditiously some priority schemes in the States of Bihar, Orissa, Uttar Pradesh and West Bengal. The Government of India have agreed to provide special financial assistance for the purpose outside the Plan with a ceiling of Rs 40 crores during the last two years of the Fourth Plan.

A decade plan (1971-81) estimated to cost Rs 540 crores has been prepared by the Ministry of Irrigation and Power with the objective of providing protection to about 50 per cent of the flood-prone areas by 1981.

Anti-Sea Erosion

The problem of erosion exists all along the sea coast of India but is acute in the 550 km stretch in Kerala. By 31 March 1972 about 80 km out of the 320 km requiring protection had been protected with an outlay of about Rs 10 crores. The Fourth Plan provision for anti-sea erosion measures in Kerala is Rs 5 crores of which Rs 2 crores had been spent up to the end of March 1972. Other protection measures are estimated to cost Rs 40 crores and are proposed to be implemented in a period of about ten years. The Government of India have set up a Beach Erosion Board for reviewing and guiding the anti-sea erosion programme in the country.

POWER

The total installed generating capacity in the country in 1947 was 19 lakh kw which rose to 23 lakh kw at the beginning of the First Plan. During the First Plan, the aggregate installed generating capacity increased by 11.2 lakh kw or by about 49 per cent. During the Second Plan, there was an increase of 64 per cent in the generating capacity which rose from 34.2 lakh kw to 56 lakh kw. By the end of the Third Plan the aggregate capacity had risen to 163 kw. The per capita generation of electricity also increased from 21 kwh in 1951 to 31 kwh in 1956, 44 kwh in 1960-61 and 111 kwh in March 1971.

The following Table shows the installed capacity and energy generated at the beginning and end of the Third Plan and at the beginning of the Fourth Plan:

TABLE 16.2
INSTALLED CAPACITY AND ENERGY GENERATED

Particulars	1960-61	1965-66	1969-70
Installed capacity (in lakh kw)	56.5	101.7	155.2
Hydro capacity (in lakh kw)	19.2	41.0	61.4
Thermal capacity (in lakh kw)	34.0	56.5	91.0
Diesel capacity (in lakh kw)	3.3	4.2	2.8
Energy generated (in crore kwh)	2,012	3,682	5,655
Public utilities (in crore kwh)	1,693	3,299	5,199
Power units in industrial establishments (in crore kwh)	319	383	456

Investment during the Plans

The total investment on power development up to the end of the Third Plan was Rs 2,350 crores. The average annual expenditure during the three-year period 1966-67 to 1968-69 was Rs 418 crores bringing the total investment at the beginning of the Fourth Plan to Rs 3,604 crores. The allocation on power development during the Fourth Plan is Rs 2,523 crores including Rs 75 crores in the private sector. The expenditure on power development in the first three years of the Fourth Plan is estimated to be Rs 1,512 crores bringing the total investment on power development till the end of 1971-72 to Rs 5,116 crores.

The Fourth Plan target for installed generating capacity is 230 lakh kw. The decade plan on power prepared by the Ministry of Irrigation and Power visualises the growth of installed generating capacity to 520 lakh kw by the end of 1980-81.

The pattern of power development in India at present is: Mysore, Kerala, Punjab, Jammu and Kashmir mainly hydro; Bihar, West Bengal and Gujarat mainly thermal; and Rajasthan, Maharashtra, Tamil Nadu, Andhra Pradesh, Uttar Pradesh, Assam, Madhya Pradesh and Orissa, partly thermal and partly hydro.

As at present visualised, power development in India will eventually be one of inter-connected hydro-electric and thermal power stations in various regions. It is envisaged that the regional system will, in due course, be inter-connected so as to form an all-India grid.

Distribution System

A vast network of over 10 lakh km of transmission and distribution system has been built up for carrying power from generating centres to consumer points. The total length of such lines was 22,664 km in 1947 which rose to 9,76,059 km in 1970 showing nearly a fifty-fold increase. An expenditure of Rs 1,104 crores had been incurred under the Plans by 31 March 1971 on constructing these lines.

Consumption

The per capita consumption of electricity was 38 kwh at the end of 1960-61. It increased to 61.4 kwh by the end of the Third Plan and to 88 kwh at the end of 1969-70. Industry continues to be the largest consumer, accounting for nearly 70 per cent of energy sales. There has, however, been a significant increase in power consumption by agriculture in recent years.

NUCLEAR POWER

Nuclear power is expected to play a progressively increasing role in meeting energy demands in future years.

The country's first 400 mw nuclear power station at Tarapur near Bombay has been in operation since October 1969. Two other nuclear power stations are in various stages of construction; a 400 mw station is being built with Canadian assistance at Rana Pratap Sagar in Rajasthan and another is coming up at Kalpakkam near Madras. The Kalpakkam atomic power station will be wholly Indian-built with 80 per cent indigenous content.

There are plans to build some more nuclear power stations, for which a site selection committee is investigating sites in the northern, western and southern regions.

RURAL ELECTRIFICATION

From a little over 3,700 villages electrified prior to the commencement of the First Plan, the total number of villages electrified by the end of the Third Plan had increased to 45,900. The tempo of rural electrification has since gained further momentum. Since 1966-67, the rural electrification programme has been reoriented with a bias towards energisation of irrigation pumpsets/tubewells for increasing agricultural production. The total number of irrigation pumpsets/tubewells energised and villages electrified in the country till March 1972 was about 18.89 lakhs and 1.21 lakhs respectively. The State of Haryana had achieved the unique distinction of having taken electricity to all its villages by November 1970. Rural electrification and energisation of pumpsets has been given increased importance and an outlay of Rs 445 crores has been provided in the Fourth Plan (Rs 295 crores in the State sector and Rs 150 crores in the Central sector).

The following Table gives the distribution of towns and villages in terms of population range, number electrified during different Plans and those electrified by 31 March 1971:

TABLE 16.3
TOWNS AND VILLAGES ELECTRIFIED

Population range	Total as per 1961 Census	Number of towns and villages electrified by					
		1951	1956	1961	March 1969	March 1970	March 1971
Up to 9,999	5,67,217	3,725	9,708	25,661	71,812	90,383	105,345
10,000-49,999	2,114	698	1,195	1,785	2,029	2,036	2,041
50,000-1 lakh	139	113	136	138	139	139	139
Over 1 lakh	107	101	104	106	107	107	107
TOTAL	5,69,577	4,637	11,143	27,690	74,087	92,665	1,07,632

Note: Figures relate to 1961 Census, except in respect of some States where only 1951 Census figures are available. The population-wise break-up is estimated wherever actual figures are not available.

Under a decade plan for rural electrification 2.33 lakh villages are to be electrified and 48.7 lakh pumpsets are to be energised during 1971-81.

Rural Electrification Corporations

The Rural Electrification Corporation, with a Plan outlay of Rs 150 crores in the Fourth Plan, was set up in the public sector in 1969. Concessional financing is provided by the Corporation for schemes relating to backward areas which have an agricultural potential. Up to 30 June 1972, the Corporation had sanctioned 242 rural electrification schemes of State electricity boards involving loans of Rs 138.21 crores and envisaging electrification of 22,514 villages, energisation of 3.04 lakh irrigation pumpsets and electricity to 49,479 small-scale and agro-industries. Of these 242 schemes, 94 relate to 'backward areas'. The Corporation had also sanctioned loans of Rs 13 crores to five pilot rural electric co-operatives. These co-operatives will electrify 729 villages, energise 27,605 pumpsets and also connect 1,553 small-scale and agro-industries in their areas of operation.

MAJOR POWER PROJECTS

Some of the major power projects existing in the country at present or those under way are briefly described below:

Machhkund (Andhra Pradesh)

A joint venture of the Governments of Andhra Pradesh and Orissa, this hydro-electric project harnesses the river Machhkund which forms the boundary between the two States. A dam has been constructed at Jalaput across the Machhkund river to store water. Three generating units of 17 mw each and three units of 21.25 mw each have been commissioned.

Srisailam (Andhra Pradesh)

The Srisailam hydro-electric project envisages the construction of a stone masonry dam across the Krishna river, about 105.4 km upstream of the Nagarjunasagar dam site. The releases from the reservoir are proposed to be utilised for power generation at the toe of the dam, with an initial installation of four units of 110 mw and with provision for adding three such units at a later stage. The project is under construction and its benefits are expected to be realised in the Fifth Plan period.

Kothagudam (Andhra Pradesh)

Two generating units of 60 mw each, comprising the first stage of this thermal project, were commissioned in 1966-67. Stage II involving the extension of the power station by two more generating units of 60 mw each, was completed in 1967. Two more generating sets of 110 mw capacity each are being installed under stage III.

Lower Sileru (Andhra Pradesh)

This hydro-electric scheme envisages the construction of a dam across Sileru river at Donkarayi village to form a reservoir. Initially four generating sets of 100 mw each will be installed with provision to add two similar sets at a later stage.

Naharkatiya (Assam)

Stage I of this thermal project, which involved the installation of three gas-turbo generating units of 23 mw each mainly for supplying power to the Namrup fertiliser factory, has been completed. The power station utilises natural gas available from the Naharkatiya oil field as fuel. Work on stage II of the project involving extension of the power station with the addition of one steam turbine set of 30 mw is under progress.

Barauni (Bihar)

The first stage of the Barauni thermal power station involving the installation of a steam power station of 30 mw capacity (2 units of 15 mw each) was completed in 1963-64. Following the installation of the oil refinery at Barauni it was decided to instal a third set of 15 mw and two units of 50 mw each. The 15-mw set was commissioned in 1965-66 and of the two 50-mw units, the first unit was commissioned in August 1969 and the second during 1971.

Patratu (Bihar)

The Patratu thermal power station is located 5·4 km from Patratu railway station and about 40 km from Ramgarh in Hazaribagh district. In the first stage, this power station will have an installed capacity of 400 mw comprising four units of 50 mw each and two units of 100 mw each. Two new units of 110 mw each will be added in stage II.

Badarpur (Delhi)

A Central thermal (steam) power station with three generating units of 100 mw each is being installed at Badarpur near Delhi. The project is intended to supply bulk power to the northern region, *viz.*, Punjab, Haryana, Uttar Pradesh, Rajasthan, Jammu and Kashmir, Himachal Pradesh and Delhi and will be completed during the Fourth Plan.

Dhuvaran Project (Gujarat)

In order to meet the growing demand for power in the Saurashtra and Gujarat areas, a thermal power station was installed at Dhuvaran, a village situated near the gulf of Cambay. The power station has four generating units with an installed capacity of 62.5 mw each. The extension of the power station by installing of two units of 140 mw is under implementation.

Baira-Siul (Himachal Pradesh)

The project will utilise the combined flow of Siul (a tributary of Ravi) and two of its tributaries, Baira and Bhaledh. The power station will have three generating sets of 67 mw each. A 106-km long 220 kv double circuit transmission line will be constructed under this scheme to feed the power into the northern regional grid. The project is expected to be completed by 1974-75.

Salal (Jammu and Kashmir)

The Salal hydro-electric project consists of an earth core rock-fill dam across Chenab river near Riasi and a power station of three 90 mw units. The power is to be fed by a 150-km long 220 kv double circuit line to the northern regional grid. This station will operate in co-ordination with the power station of the Bhakra-Beas complex and other stations in the northern grid. The project is expected to be completed in 1975-76.

Iddiki (Kerala)

This hydro-electric project, located in the high ranges of Periyar about 160 km south-east of Ernakulam, envisages, (i) a common storage reservoir formed by two main dams, one across the Periyar at Iddiki gorge and the other across Cheruthoni, a tributary of the Periyar, and(ii) a power house with three units of 130 mw each initially and three similar units at a later date. The first generating unit is likely to be commissioned in 1973-74. This project is being executed with Canadian assistance.

Sabarigiri (Kerala)

This project is located 129 km south-east of Kottayam across the Pamba and Kakki rivers in Quilon district. Two masonry dams and one concrete gravity dam have been constructed across the rivers Pamba and Kakki. The project with a total installed capacity of 300 mw has been completed.

Korba (Madhya Pradesh)

The project's total installed capacity is 300 mw. Stage I of the Korba thermal station comprising the installation of three units of 30 mw each and one unit of 10 mw was completed in 1960. Under stage II, four units of 50 mw each, have also been commissioned. The project was completed in 1969.

Satpura (Madhya Pradesh)

This is a joint project of Rajasthan and Madhya Pradesh and was executed to meet the anticipated load demand in the areas of western Madhya Pradesh and Rajasthan served by the Chambal grid system. The thermal station is located in the Patherkheda coalfields in Betul district and has five generating units of 62·5 mw each. The project was completed during 1969-70.

Koyna (Maharashtra)

The first stage of this hydro-electric project envisaged the construction of a dam across the river Koyna and a tunnel for diverting the waters of the river to ensure a drop of about 478 metres. The underground power house has four units of 60 mw each, all of which have been commissioned. The second stage of the project, envisaging the raising of the gross storage capacity of the reservoir and the addition of four more generating units of 75 mw each, has also been completed. The project supplies power to Bombay-Poona area and the adjoining districts.

The third stage envisages the construction of a gravity dam, an underground power house with four units of 80 mw each, 11·2-km long 220 kv transmission line and three tunnels. All the generating units are scheduled to be commissioned during the Fifth Plan.

Nagpur (Koradi) (Maharashtra)

The scheme provides for the setting up of a thermal power station with four generating sets of 120 mw each at a site close to village Koradi, about 10 km north of Nagpur. Two sets are expected to be commissioned during the Fourth Plan.

Loktak (Manipur)

The project envisages the construction of a 10.6-metre high barrage across the river Manipur at Ithai, a water conductor system comprising 4,115-metre long open channel and 6,248-metre long head race tunnel. The generating station will have two units of 35 mw each with provision for addition of one more unit of the same capacity at a later date. Efforts are being made to complete the project by 1973-74.

Sharavati (Mysore)

The Sharavati hydro-electric project is proposed to be developed in three stages. The first stage comprised the building of a dam near Linganamakki village with a reservoir, necessary water conductor system and installation of two generating units of 89.1 mw each. The second stage envisaged the construction of other civil works and installation of six more generating units of 89.1 mw each. The first and second stage works have been completed. The third stage, which envisages installation of the ninth and tenth 89.1 mw generating units, is under implementation.

Balimela (Orissa)

The Balimela dam scheme is a joint project of the Governments of Andhra Pradesh and Orissa, the cost and benefits to be shared equally by the two States. The dam will provide a regulated discharge of 4,200 cusecs for power generation. Under the Balimela hydro-electric project of Orissa Government, the State's share of 2,100 cusecs will be conveyed through a water conductor system to a power station with an installation of six generating sets of 60 mw each.

The hydro-electric works are expected to be completed in the Fourth Plan. As regards 2,100 cusecs for Andhra Pradesh, the water will be utilised for power generation at Upper Sileru and Lower Sileru hydro-electric schemes.

Talcher (Orissa)

The project comprises a thermal power station with four generating units of 62.5 mw each at Talcher, where abundant reserves of low-grade coal are available. All the four generating sets have been commissioned.

Guru Nanak Power Plant (Panjab)

Guru Nanak thermal power station is being constructed near the Bhatinda civil station. The station will house two generating units of 110 mw each, of which one unit would be commissioned during the Fourth Plan period.

Ennore (Tamil Nadu)

The scheme envisages the installation of 340 mw thermal generating capacity at Ennore near Madras comprising two 110 mw generating units and two 60 mw generating units. The scheme is expected to be completed during the Fourth Plan. The second stage of the scheme which has also been approved for implementation under the Fourth Plan involves the installation of one unit of 110 mw capacity.

Mettur Tunnel Scheme (Tamil Nadu)

The scheme provides for the utilisation of the discharge of 20,000 cusecs from the Mettur reservoir during the irrigation period for power generation by four units of 50 mw each, all of which have been commissioned.

Neyveli (Tamil Nadu)

The Neyveli thermal station has been set up with Soviet assistance. The total installed capacity of the project is 600 mw. The project has been completed in three stages. The first unit of 50 mw under stage I was commissioned in June 1962 and the last unit of 100 mw under the Stage III was commissioned in September 1970. The project will benefit the whole of Tamil Nadu as power generated will be fed into the State grid.

Kundah (Tamil Nadu)

This Project involved the development of Kundah basin in the Nilgiri Hills in four stages. Stages I and II with an installed capacity of 145 mw were completed in 1960-61 and stage III with an installed capacity of 245 mw was completed in 1965-66. Stage IV of the project, envisaging the installation of 110 mw capacity, is expected to be completed during the Fourth Plan. The project will benefit the whole of Tamil Nadu as the power generated will be fed into the State grid.

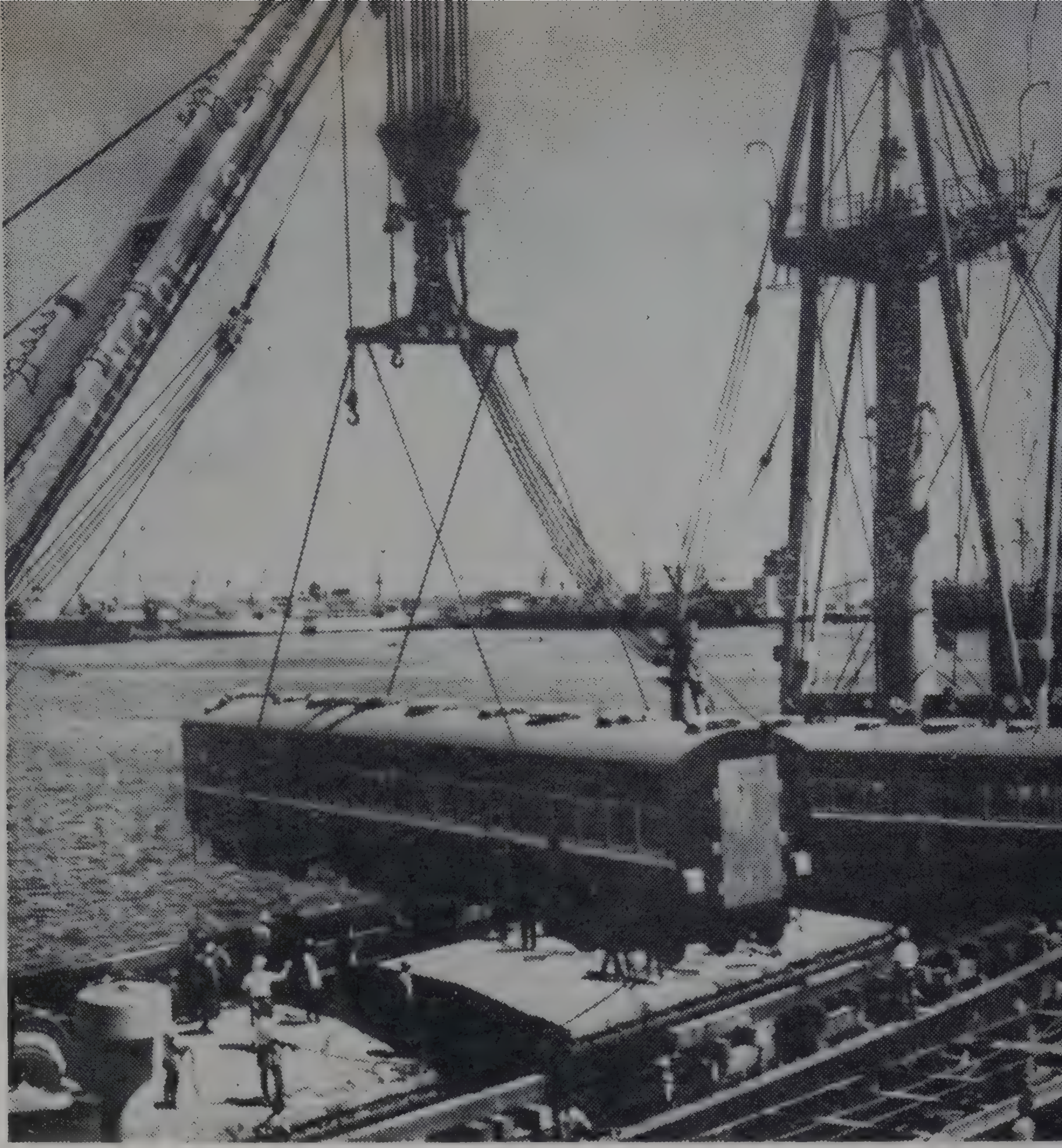
Harduaganj (Uttar Pradesh)

Harduaganj thermal station is the biggest thermal station in Uttar Pradesh. The project envisages a total capacity of 420 mw in five stages. Stages I, II, III and IV comprising the installation of three units of 30 mw each, two units of 50 mw each and two units of 55 mw each, have already been completed. Stage V, envisaging the installation of one unit of 120 mw, is expected to be completed by 1974-75.

Obra (Uttar Pradesh)

The first stage of this thermal project involved installation of five generating units of 50 mw each. The power station, located near

The Fourth Plan target of 7 per cent annual increase in India's exports was exceeded in 1970–71 when a turnover of Rs 1,535 crores was recorded. Exports now include sophisticated electrical and engineering goods. (Right) Railway coaches being loaded for export.



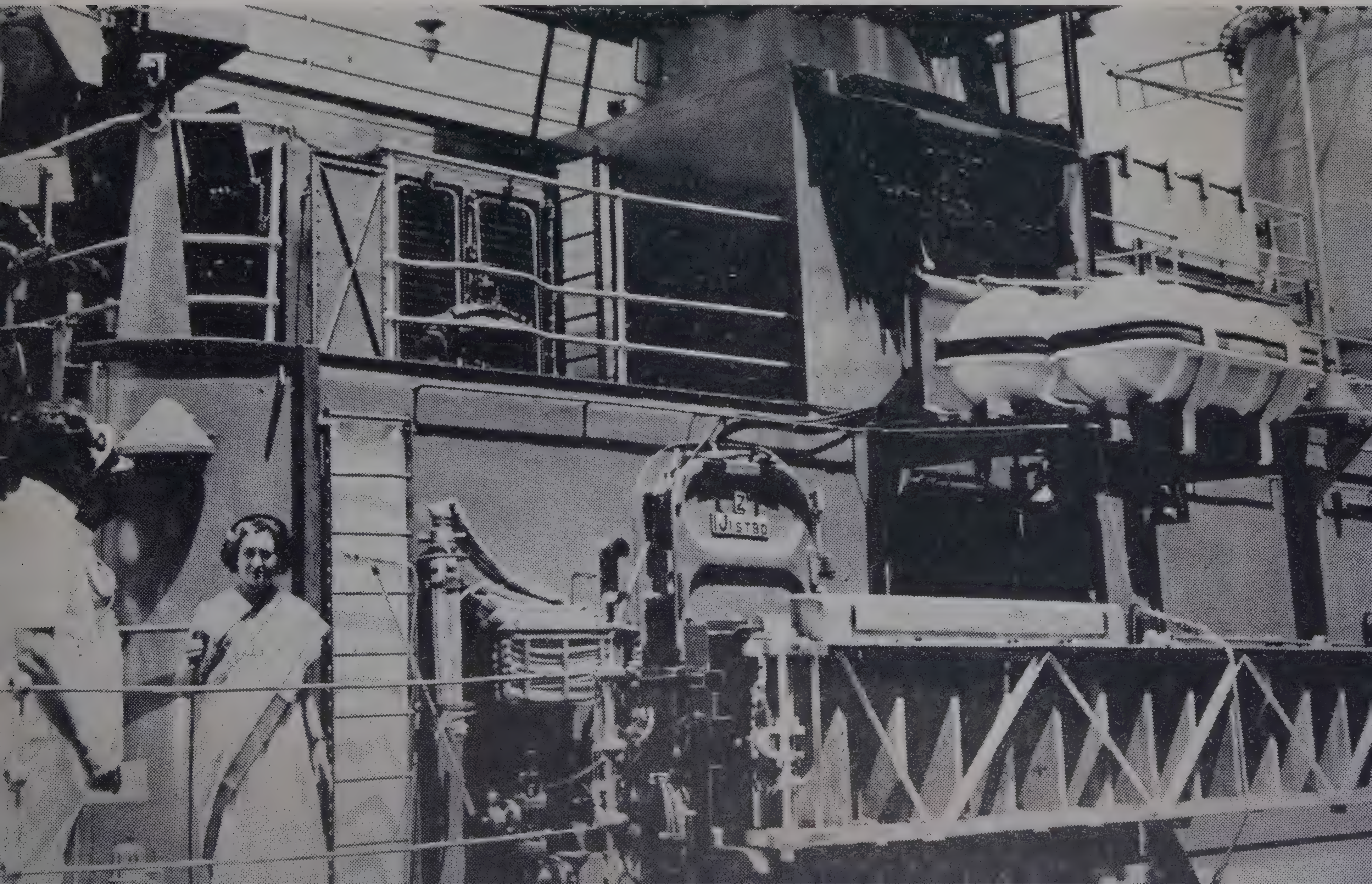
Family planning has been receiving increasing acceptance by all sections of the Indian people. The birth rate is estimated to have declined from 38.3 per thousand in 1969–70 to 37.7 in 1970–71. (Below) A vasectomy operation in progress at a Family Welfare Planning Centre.

1972 was observed in the country as the International Book Year as declared by UNESCO. (Above) Visitors examining books at a stall in the World Book Fair held in New Delhi.

The Indian cricket team returns home after winning the 'rubber' against England for the first time on English soil on 24 August 1971. Earlier, India had won the 'rubber' against the West Indies for the first time on 20 April 1971.

"Emperor Ashoka", the first 346-seater Boeing 747 Jumbo jet, which joined Air India's fleet on 18 April 1971.

India has achieved a high degree of self-sufficiency in the production of defence equipment. (Below) The first India-built Leander class frigate INS Nilgiri *which was commissioned on 3 June 1972.*



India became the world's largest film producer in 1971 by producing 433 feature films. Miss Rehana Sultan (left) receiving the Best Actress of the Year (Urvashi) Award from the then Union Minister of State for Information and Broadcasting, Smt. Nandini Satpathy, at Bombay on 23 January 1972.

Singrauli coal-fields, has been designed to use low-grade coal. The first stage was completed in early 1970 and all the five generating units have been commissioned. Stages II and III envisage extension of the power station by raising its power generating capacity to 1,150 mw. Installation of two generating units of 200 mw each (stage IV) has also been envisaged. A second thermal power station is also to be set up at Obra. The scheme envisages installation of five units of 200 mw each.

Rihand (Uttar Pradesh)

The Rihand project consists of a concrete gravity dam across the river Rihand near the village Pipri in Mirzapur district, about 46.4 km south of the confluence of the Rihand and the Sone rivers. The power house at the foot of the dam has six generating units of 50 mw each. A network of 132 kv and 66 kv transmission lines with the necessary sub-stations covers the entire eastern and south-eastern parts of Uttar Pradesh.

Yamuna Hydel Scheme (Uttar Pradesh)

The scheme is to harness the river Yamuna and its tributary Tons in two stages. Under stage I, two power houses on the power channel, one at Dhakrani and the other at Dhalipur with an installed capacity of 33.75 mw and 51 mw respectively, have been installed.

Stage II envisages the construction of a diversion dam near village Ichari on river Tons, situated 28.8 km upstream of its confluence with the Yamuna. Two power houses are under construction, one with four units of 60 mw each and the other with four units of 30 mw each.

Bandel (West Bengal)

This thermal power station is located about 46 km north of Calcutta close to the river Hooghly by the side of Bandel-Banarwa railway line and at the centre of a rapidly growing industrial area. The project has four generating units of 82.5 mw each, all of which have been commissioned. The extension project involving installation of a 200 mw unit has also been envisaged.

Santaldih (West Bengal)

This scheme provides for the installation of four 120 mw generating units and other auxiliary equipments at Santaldih in Purulia district utilising the middlings and rejects available from the adjoining coal washeries. Two units are expected to be commissioned by the end of the Fourth Plan.

ORGANISATIONS FOR POWER DEVELOPMENT

The generation and distribution of electricity in India was for a long time governed by the Indian Electricity Act of 1910. The Electricity (Supply) Act passed in 1948 provided for the setting up of a Central Electricity Authority for the entire country as well as State organisations known as State Electricity Boards. Accordingly, the Central Electricity Authority was constituted in 1950 and during subsequent years State electricity boards were constituted in all the States.

Regional Electricity Boards

With a view to deriving the maximum possible benefits from the available fuel and hydro-electric resources in India as a whole, the country has been demarcated into five regions. Five regional electricity boards were formed in February-March 1964 for furthering the objective of achieving regional operation of power systems as shown below:

Regional electricity boards	*Areas covered*
Northern	Jammu and Kashmir, Himachal Pradesh, Punjab, Haryana, Delhi, Uttar Pradesh, Rajasthan and Chandigarh.
Southern	Andhra Pradesh, Tamil Nadu, Mysore, Kerala and Pondicherry.
Eastern	West Bengal, Bihar, Orissa and the Damodar Valley Corporation system.
Western	Gujarat, Maharashtra, Madhya Pradesh, Goa, Daman and Diu and Dadra and Nagar Haveli
North-Eastern	Assam, Manipur, Tripura, Meghalaya, Nagaland, Mizoram and Arunachal Pradesh.

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17 INDUSTRY

A century of industrial development pales into insignificance in camparison with the rapid industrial growth witnessed during the first twenty years of planned development. The index number of industrial production (base year: 1960-100) went up from 54.8 in 1951 to 186.2 in 1971. The output of certain basic industries has increased much more. Production of finished steel, for example, increased 4.3 times during this period and of nitrogenous fertilizers from 9,000 tonnes in 1950-51 to 8,30,000 tonnes in 1970-71. Hundreds of new industries have been started. Foundations have been laid of heavy machine-building and other branches of heavy engineering.

An important feature of industrial growth in the country after Independence has been the rapid expansion of the public sector. In 1951, there were only five non-departmental public undertakings with an investment of Rs 29 crores. By 31 March 1971, the number of such undertakings had increased to 97 with an investment of Rs 4,682 crores. These enterprises now produce diverse products such as steel, heavy and light engineering goods, fertilizers and basic chemicals, drugs, mining and minerals, petroleum products, aircraft and ships and locomotives.

According to the provisional summary results of the Annual Survey of Industries for 1967, there were 12,513 (12,300)* registered factories, employing 50 or more workers with the aid of power and 100 or more workers without the aid of power, showing an increase of 1.73 per cent over the corresponding data for 1966. Of these, the factories which reported data numbered 12,152 (11,933) representing an increase of 1.84 per cent over the preceding year. The reporting factories had a productive capital of Rs 8,328 (7,548) crores showing an increase of 10.33 per cent over 1966. The total employment in these factories during the year was 39.30 lakh persons, the same as in 1966. The total of salaries, wages and benefits at Rs 1,095 (987) crores, was 10.94 per cent above the 1966 level. The ex-factory value of output amounted to Rs 7,784 (7,213) crores or 7.92 per cent more than in 1966. The value of input including depreciation totalled Rs 5,884 (5,403) crores, representing an increase of 8.90 per cent. The value added by manufacture, therefore, worked out to Rs 1,899 (1,810) crores, or 4.92 per cent more than in the preceding year.

According to the Survey, the most industrialised States in the country were Maharashtra, West Bengal, Tamil Nadu, Gujarat, Bihar and Uttar Pradesh, together accounting for 64 per cent of the reporting factories, 66 per cent of the productive capital employed, 70 per cent of the employment, 74 per cent of the value of output and 75 per cent of the value added by manufacture. (The position in 1966 was almost similar in these States). The remaining States and Territories accounted for the balance of 36 per cent of the reporting units, 34 per cent of the productive capital employed, 30 per cent of the total employment, 26 per cent of the value of output and 25 per cent of the value added by manufacture.

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*Figures in brackets are for 1966 and are presented for comparison.

POLICY AND PROGRESS

INDUSTRIAL POLICY

Independent India's industrial policy, envisaging a mixed economy, was first announced in 1948*. A fresh statement of the industrial policy, necessitated by the acceptance of a socialist pattern of society as the national objective, was announced on 30 April 1956. Under this, industries specified in Schedule A are the exclusive responsibility of the state, while Schedule B industries are to be progressively state-owned, but private enterprise is expected to supplement the efforts of the state in these fields. (The two Schedules are enumerated below.) Future development of industries falling outside these Schedules will, in general, be left to private enterprise. Notwithstanding this demarcation, it will always be open to the state to undertake any type of industrial production.

Schedule A Industries: Arms and ammunition and allied items of defence equipment; atomic energy; iron and steel; heavy castings and forgings of iron and steel; heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the Central Government; heavy electrical plant including large hydraulic and steam turbines; coal and lignite; mineral oils; mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamonds; mining and processing of copper, lead, zinc, molybdenum and wolfram; minerals specified in the schedule to the Atomic Energy (Control of Production and Use) Order, 1953; aircraft; air transport; railway transport; ship-building; telephones and telephone cables; telegraph and wireless apparatus (excluding radio receiving sets); generation and distribution of electricity.

Schedule B Industries: All other minerals except "minor minerals" as defined in Section 3 of the Minerals Concession Rules, 1949; aluminium and other non-ferrous metals not included in Schedule A; machine tools; ferro-alloys and tool steels; basic and intermediate products required by chemical industries such as the manufacture of drugs, dyestuffs and plastics; antibiotics and other essential drugs; fertilizers; synthetic rubber; carbonisation of coal; chemical pulp; road transport and sea transport.

Regulation of Industry

Consistent with the policy first announced in 1948, the Constitution was amended and the Industries (Development and Regulation) Act, 1951, was enacted. Under the Act, the industries listed in the first Schedule to the Act are required to be licensed by the Government. The Act authorises the Government to examine the working of any such industrial undertaking and to issue such directions as it considers necessary. If the undertaking continues to be mismanaged, the Government are empowered to take over its management or control. The Act also empowers the Government to secure equitable distribution and fair prices of any article produced by the scheduled industries. By exercising these powers, the Government aims at securing a proper utilisation of the country's resources, a balanced development of large and small industries and a proper regional distribution of the industries.

Industrial Licensing

An important objective of the industrial policy is to prevent the emergence of private monopolies and the concentration of economic power in the hands of a small number of individuals. This problem was studied by the Mahalanobis Committee on Distribution of Income and Levels of Living (October 1960); the Monopolies Enquiry Commission (April 1964), and the Industrial Licensing Policy Inquiry Committee (July 1967). The Administrative Reforms Commission and the Planning Commission also made various recommendations. As a result, the Industrial Licensing Policy was modified in February 1970 and the Monopoly and Restrictive Trade Practices Commission was appointed on 6 August 1970.

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*See "India 1957", p. 289.

Some salient features of this policy are: 1. There would be a core sector, including basic, critical and strategic industries covering nine groups of industries, *viz.*, (i) agricultural inputs, (ii) iron and steel, (iii) non-ferrous metals, (iv) petroleum, (v) coking coal, (vi) heavy industrial machinery, (vii) ship building and dredgers, (viii) newsprint, and (ix) electronics. Detailed development plans will be prepared for these industries and essential inputs and foreign exchange will be made available on a priority basis. Except for the industries reserved for the public sector under the Industrial Policy Resolution, 1956, the core industries will be open for investment to the private sector, including the larger industrial houses and the foreign subsidiaries.

2. All new investment propositions exceeding Rs 5 crores shall be deemed to be in the heavy investment sector. Subject to the reservations for the public sector under the Industrial Policy Resolution, 1956, this sector will be open to the large industrial houses and foreign subsidiaries.

3. In the middle sector involving investments from Rs one crore to Rs 5 crores, licences to parties other than large industrial houses will be given liberally, except where foreign exchange implications necessitate close scrutiny. Licences for normal expansion will also be given to large industrial houses in order to achieve greater cost efficiency.

4. The policy of reservation for the small-scale sector (involving an investment in machinery and equipment up to Rs 7,50,000) will be continued. At present, there are 128 items on this reserved list.

5. Applicants from the co-operative sector will get preference in the licensing of new agro-industries, particularly the processing of sugarcane and jute and other agricultural commodities.

6. A striking feature of the new policy is that the exemption limit for licensing has been raised from Rs 25 lakhs to Rs one crore. Now, new undertakings or the substantial expansion of units requiring investment of Rs one crore or less will not be required to take a licence under the Industries (Development and Regulation) Act, 1951. This exemption is, however, applicable only to undertakings which have existing assets of less than Rs 5 crores and which fulfil certain conditions.

The new licensing policy envisages high priority for export-oriented units. Those undertakings shall be given facilities which step up production for exports, particularly in respect of items in which India has a comparative advantage and where favourable trends are emerging in international market. Export potential of undertakings belonging to the small and middle sector entrepreneurs will be developed to the maximum extent. Undertakings belonging to or controlled by large industrial houses and foreign majority concerns, which are expected to participate mainly in the core and heavy investment sector, would be able to establish undertakings or expand production in areas other than these sectors provided they undertake specific export commitment. The minimum export obligation in such cases will be at least 60 per cent of the new production which should be achieved within a period of three years. Even in the fields reserved for the small sector, units other than small sector units can be considered for expansion or creation of new capacities if they undertake an export obligation of a minimum of 75 per cent of the additional production within a period of three years.

The new policy also formulates guidelines for the diversification of production. It provides that under certain conditions, industries registered under the Industries (D&R) Act would have the freedom to diversify their production by taking up the manufacture of new articles up to 25 per cent of their licensed or registered capacity (by value) without an industrial licence.

STANDARDISATION

The Indian Standards Institution (ISI) functions under the Union Ministry of Industrial Development with headquarters at New Delhi and branch offices at Ahmedabad, Bangalore, Bombay, Calcutta, Hyderabad, Kanpur and Madras. Established in 1947, the Institution lays down national standards for commodities, materials, practices, processes, etc., and promotes standardisation, quality control and simplification in industry and technology. Over 80 per cent of the standards formulated by ISI have been adopted by public and private sector organisations for their production and procurement programmes.

The Institution also operates the ISI Certification Marks Scheme under an Act of Parliament and issues licences to manufacturers for applying the ISI Certification Mark on their products as a third party guarantee about their quality. So far, nearly 7.000 standards have been formulated which include about 1,000 standards of consumer interest.

The Institution also imparts detailed training in standardisation methods and techniques to company executives and technical personnel. Engineers and technologists from Burma, Ceylon, Kenya, Malaysia, Philippines, Singapore, South Yemen, Thailand, Egypt and Zambia have also undergone training under the centralised training programme.

INDUSTRIAL FINANCE

Several institutions are providing industrial finance. The Industrial Finance Corporation of India (IFC), established under an Act of Parliament in July 1948, has been giving assistance in the form of advances and long-term loans to private sector industrial concerns. With the establishment of the Industrial Development Bank of India and the amendments carried out to the IFC Act in 1964, a change took place in the capital structure of the IFC. Prior to 1964, the Central Government and the Reserve Bank of India each held 20 per cent shares in the Corporation. In 1964, these shares were transferred to the Industrial Development Bank of India and additional shares were issued by the Corporation to the IDBI to enable it to hold 50 per cent share capital in the Corporation. Certain powers in regard to the operations of the Corporation, which had vested in the Central Government prior to 1964, were also made over to the IDBI. The Corporation thus became a subsidiary of the IDBI. Since its inception and up to the end of June 1972, the total net financial assistance sanctioned and disbursed by the Corporation amounted to Rs 397.86 crores and Rs 340.45 crores respectively.

SFCs

The State Financial Corporations which now total 18, assist medium and small-scale industries which do not fall within the scope of the All-India Corporation. The outstanding loans as on 31 March 1972 totalled Rs 154.6 crores, 21 per cent higher than a year ago. The loans sanctioned by them increased from Rs 49 crores in 1970-71 to Rs 63.4 crores in 1971-72 (by 30 per cent) and disbursements from Rs 32.9 crores to Rs 38.8 crores (by 17.9 per cent).

IDBI

The Industrial Development Bank of India (IDBI) was set up in July 1964 as an apex institution to co-ordinate the operations of other institutions providing term finance to industry as well as an agency to provide direct financial assistance to industrial units. It has also been conceived of as an agency to locate and fill gaps in the industrial structure and it can undertake promotional activities like marketing, investment, research surveys, techno-economic studies, and give technical and administrative assistance to any industrial enterprise for promotion, management or expansion. During 1970, it initiated, with the assistance of other term lending institutions and the Reserve Bank surveys of industrial possibilities in backward areas. Up to the end of March 1972 such surveys were completed in 11 States and 4 Union Territories.

IDBI is a wholly owned subsidiary of the Reserve Bank of India with an authorised capital of Rs 50 crores, which may be raised to Rs 100 crores, and an issued capital of Rs 10 crores from the Central Government. To augment its resources, the Bank can sell bonds, obtain deposits from the public and borrow from the Reserve Bank of India. Up to 30 June 1972, the Bank had sanctioned effective financial assistance (excluding guarantees) aggregating Rs 598.09 crores out of which assistance of Rs 424.60 crores has been utilised. Total financial assistance sanctioned and disbursed under the schemes of (i) direct assistance (other than for exports), and (ii) refinance of industrial loans and machinery bills rediscounting rose from Rs 97.7 crores in 1970-71 to Rs 141.8 crores in 1971-72 and disbursements from Rs 54.2 crores to Rs 73.7 crores.

ICICI

During 1971, the Industrial Credit and Investment Corporation of India (ICICI) provided financial assistance of Rs 50.16 crores (including foreign currencies) as against Rs 43.14 crores in 1970. The amount distributed was higher at Rs 30.57 crores as against Rs 27.62 crores in the preceding year. The total amount sanctioned and disbursed since its inception was Rs 333.75 crores and Rs 229.70 crores respectively till the end of December 1971.

IRCI

The Industrial Reconstruction Corporation of India (IRCI), which was set up at the initiative of IDBI in April 1971 for the provision of reconstruction and rehabilitation assistance to sick and closed units, has made a significant beginning. Its activities include restructuring of the management and providing technical and managerial assistance. Up to the end of June 1972, the IRCI had sanctioned loan assistance on softer terms and guarantee facilities to 48 units for Rs 7.4 crores. The employment in these units was 38,326.

NIDC

The National Industrial Development Corporation (NIDC) was set up in 1954, to grant special loans for the rehabilitation and modernisation of cotton textile and jute industries and for the expansion of machine tool units. Loans amounting to Rs 18.74 crores were disbursed till the end of March 1972. The Corporation has not been entertaining fresh applications for loans since February 1963. It is at present engaged in rendering engineering consultancy services both at home and abroad. The Corporation's consultancy services are being increasingly utilised by developing countries like Kenya, Libya and Iran. The United Nations Industrial Development Organisation and private parties in the United Kingdom have also given some assignments to the Corporation.

UTI

The Unit Trust of India (UTI), established in February 1964 as a public sector investment institution, started its operations in July 1964 with the primary purpose of mobilising the savings of the community and for providing, particularly for the small and middle income groups, a medium of investment in industrial securities. The Trust has an initial capital of Rs 5 crores contributed by the Reserve Bank, the State Bank, the Life Insurance Corporation and the financial institutions giving loans to industry. The Trust is managed by a Board of Trustees. It mobilises savings through sale of its units, for which it has formulated two Unit Schemes, *viz.*, the Unit Scheme, 1964 and the Unit Scheme, 1971. The Trust has also framed specific savings plans to cater to the needs of individual savers, *viz.*, the Voluntary Savings Plan (1969) and the Children's Gift Plan (1970). The net sales of units under the Unit Scheme, 1964 totalled Rs 102 crores till the end of March 1972. The income distribution was 6.1 per cent in 1964-65, and 8 per cent in 1970-71.

The Government also assist the private sector by facilitating the import of essential raw materials and basic intermediates, offering tax concessions and protecting new industries in the first few years. The statutory Tariff Commission, established in January 1952 in place of the previous non-statutory Tariff Board, has been reviewing the progress of protected industries and examining new cases for protection.

FOREIGN CAPITAL

To supplement the capital resources and know-how for rapid industrial development, the Government have allowed foreign assistance in desirable cases. The policy in regard to foreign capital was enunciated in the Industrial Policy Resolution of April 1948, and in the Prime Minister's statement in the Constituent Assembly in 1949, which laid down that :

(i) the participation of foreign capital and enterprise should be carefully regulated in the national interest by ensuring that major interest in ownership and effective control should, save in exceptional cases, always be in Indian hands and that the training of suitable Indian personnel for the purpose of eventually replacing foreign experts will be insisted upon in all such cases;

(ii) there will be no discrimination between foreign and Indian undertakings in the application of the general industrial policy;

(iii) reasonable facilities will be given for the remittance of profits and repatriation of capital consistent with the foreign exchange position of the country; and

(iv) in the event of nationalisation, fair and equitable compensation will be paid.

This basic policy has not subsequently needed any material modification. The Fourth Five Year Plan stresses that foreign collaboration should be resorted to only for meeting critical gaps and should not inhibit the maximum utilisation of domestic know-how and services. While import of foreign know-how, particularly in sophisticated industrial fields, would continue to be required, it would be essential to make simultaneous efforts for the adaptation of such know-how through indigenous effort and to improve on it to avoid the need for future purchases.

In order to identify the fields in which foreign collaboration is required and to streamline the procedure for acceptance or otherwise of foreign collaboration proposals, a Foreign Investment Board has been set up. Broad guidelines regarding the fields and terms on which foreign collaboration might be permitted have been indicated.

DEVELOPMENT OF INDUSTRIES

Early Stages

The history of organised industry in India can be traced to 1854 when the real beginnings of the cotton mill industry were made in Bombay with predominantly Indian capital and enterprise. The foundations of jute industry were laid near Calcutta in 1855, mostly with foreign capital and enterprise. Coal-mining also progressed about this time. These were the only major industries which had developed substantially before the first World War. During and after World Wars I and II, new conditions were created and somewhat more liberal policies adopted by the authorities, such as the discriminating protection policy which gave impetus to industrial development. Several industries rapidly expanded and a number of new industries came up, such as steel, sugar, cement,glass, industrial chemicals, soap, vanaspati and some branches of engineering. But their production was neither adequate in quantity for meeting even the low level of internal demand nor diversified in character.

Progress during First and Second Plans

During the period of the First and Second Five Year Plans (1951-52 to 1960-61), the growth and diversification of industry were remarkable and particularly so in the five years of the Second Plan. Three new steel works, each of 10 lakh tons capacity, were set up in the public sector and the capacity of the two existing steel works in the private sector doubled to 20 lakh and 10 lakh ingot tons respectively. Foundations were laid of heavy electrical and heavy machine tools industries, heavy machine building and other branches of heavy engineering; and the production of machinery for the cement and paper industries started for the first time. In chemical industries the advance was on a wide front, leading not only to large units and greatly increased output of basic chemicals, such as nitrogenous fertilizers, caustic soda, soda ash and sulphuric acid, but also to the manufacture of a number of new products like urea, ammonium phosphate, penicillin, synthetic fibres, industrial explosives, polyethylene, newsprint, dyestuffs, etc. The output of many other industries like bicycles, sewing machines, telephones, electrical goods, textile and sugar machinery increased substantially. New skills were learnt by the workers and a large and growing class of industrial managers came into being. Organised industrial production practically doubled in these ten years; the index of industrial production rose from 100 in 1950-51 to 194 in 1960-61. New industrial townships and various factories sprang up in the environs of the main cities of the country.

At the same time there were some large shortfalls. The combined output of the new steel works was only 6 lakh tons in 1960-61 as against the target of 20 lakh tons. The expansion of the Government Sindri Fertilizer Factory and the private sector ammonium chloride project at Varanasi were completed 12 to 18 months after the scheduled dates. The three fertilizer plants in the public sector at Nangal, Neyveli and Rourkela and the Heavy Electrical Project at Bhopal were delayed, mainly due to foreign exchange difficulties. The heavy machinery, the mining machinery and the foundry forge projects, which should have been far advanced, only began to yield some output at the end of the Third Plan. The project for the manufacture of organic intermediates was delayed due to difficulties in concluding negotiations with overseas collaborators.

Targets of capacity and production in most cases were, however, approximately fulfilled, and in some cases for example, power-driven pumps, diesel engines, electric motors, ACSR cables, electric fans, radio receivers and sugar, the targets were exceeded.

Dispersal of industry was effected by giving preference in the location of public sector projects to relatively backward areas whenever possible. Similarly in the licensing of private sector projects the claims of under-developed regions were generally kept in view to the extent possible.

Third Plan and Annual Plans

Industrial progress was markedly uneven during the eight years which comprised the Third Plan (1961-66) and the subsequent Annual Plans (1966-69). In the first four years, conditions were relatively favourable for industrial investments and growth and the progress achieved was significant. Thereafter, for nearly three years the economy was subjected to considerable stress and strain and the growth rate in industrial production declined, first slowly and then steeply, till it reached virtual stagnation. In the last year of this period, 1968-69, there were distinct signs of recovery and hope for the future.

These vicissitudes may be illustrated with reference to the index of industrial production. The increase in industrial output (1960 as base) stood at 8.2 per cent in 1961-62, 9.6 per cent in 1962-63, 9.2 per cent in 1963-64 and 8.8 per cent in 1964-65. Thereafter there was sharp deterioration in the rate of growth of output. It fell to 5.3 per cent in 1965-66, 0.2 per cent in 1966-67 and 0.5 per cent in 1967-68. The decline in these years was mainly due to low rates of growth in textiles and food indusries on the one hand and metals and machinery industries on the other. In many of these industries, there was a fall in absolute output. Industrial production, however, showed a sharp recovery during 1968-69 with a rise of 6.2 per cent.

The decline in industrial growth after 1964-65 was attributable to several factors, of which the most important were the series of dislocations caused by the hostilities in 1965 and two successive droughts. Many industries were severely affected by the shortage of raw materials and components arising from the pause in external aid in 1965.

Among industries in which Third Plan targets of capacity or production were fully or nearly realised by 1965-66, are aluminium, automobiles, electric transformers, cotton textile machinery, machine tools, sugar, jute textiles, power-driven pumps, diesel engines and petroleum products. On the other hand, in some of the important industries like steel and fertilizers, there was considerable shortfall in production. In the subsequent years, there has been a step-up in production in certain industries such as aluminium, fertilizers, heavy chemicals, cement and petroleum products. The Third Plan targets for steel and fertilizers were not realised even by 1968-69, the output of finished steel being 4.7 million tonnes in 1968-69 against the Third Plan target of 6.8 million tonnes and of nitrogenous fertilizers at about 5,41,000 tonnes against an expected 8,00,000 tonnes.

In spite of this rather uneven performance, significant achievements contributing towards the realisation of diversified industrial structure were made during this period. Substantial capacity has been created in many new lines. A fairly sound base for future growth has been laid. Several of the large projects initiated at the commencement of the Third Plan have been completed and brought into production. In particular, in the field of heavy engineering and machine-building industries, the commencement of production of the different units in the Heavy Engineering Corporation, Mining and Allied Machinery Corporation and of heavy electrical projects has now made possible, largely through indigenous efforts, the expansion of further capacity in vital sectors like iron and steel, mining and power generation. In the field of rail and road transport and communications, virtual self-sufficiency for the supply of equipment and rolling stock has been realised. Machinery manufacturing capacity for a variety of traditional industries like textiles, sugar and cement has been developed. Design and engineering capabilities have been expanded. Process technology has been either acquired or developed to enable the planning, designing and construction of industrial projects with maximum indigenous efforts in fields like fertilizers, rayon and dissolving pulp. There has been appreciable increase in the production capacity of steel and non-ferrous metals. Progress has also been made in the expansion of capacity in petroleum, fertilizer and petro-chemical industries. In a wide range of industries, it will be possible merely by the fuller utilisation of existing capacity—as distinguished from new investment—to achieve substantially higher levels of production.

Fourth Plan : Programmes and Outlay

The emphasis in the industrial field has now shifted from "growth with stability" to "growth with justice". The industrial programmes and policies for the Fourth Plan have, therefore, been so framed as to correct imbalances in the industrial structure and to bring about the maximum utilisation of capacity already built up. At the same time conditions have to be brought about for a vigorous growth in industrial output without any undue burden on the balance of payments. In broad terms, the objectives of investments in the industrial field are: (1) completing investment in relation to which commitments have already been made; (2) increasing existing capacities to levels required for present or future developments, in particular providing for more adequate internal supplies of essentials in increasing demand or needed for import substitution or for export promotion; and (3) taking advantage of internal developments or availabilities to build new industries or new bases for industries. Capital and personnel resources will be canalised in such a way as to achieve as widespread an industrialisation of the country as possible and encourage the emergence of new enterpreneurship and greater dispersal in the ownership and control of industries. The Industrial Policy Resolution of 1956 will continue to govern industrial development.

The Fourth Plan envisages an investment of Rs 5,298 crores in industry out of which the public sector outlay on organised industry and mining amounts to Rs 3,337.7 crores including Rs 3,048 crores of investment, Rs 250 crores for transfer to private and co-operative sectors through financial institutions and Rs 40 crores for supporting plantation programmes which have a bearing on export earnings and for the State Industrial Development Corporations. Investment in the private and co-operative sectors is estimated as Rs 2,250 crores.

The major proportion of the outlay in the public sector is intended for the completion of projects already under implementation and projects on which investment decisions have been taken. New projects are envisaged in high priority fields like fertilizers, pesticides, petro-chemicals, non-ferrous metals, and development of iron ore, pyrites and rock phosphate resources. New investment in the engineering industries is limited to a few comparatively small projects for filling critical gaps. Among other schemes, mention may be made of the Textile Corporation for which a provision of Rs 17.5 crores has been made primarily for the purpose of reconstruction and modernisation of viable mills taken over by the Government. In view of the importance attached to the newsprint industry and the need for expanding production of paper, a provision of Rs 60 crores has been made for the Paper Corporation. The activities of the Cement Corporation are limited for the present to the completion of the two projects already under way and the establishment of three more projects during the Fourth Plan period in regions where there are shortages. The public sector programme includes provision for the continuing activities of the Geological Survey of India, Indian Bureau of Mines, National Productivity Council and Indian Standards Institution. The proposals for GSI include systematic mapping, detailed geological mapping as well as exploration of mineral deposits utilising sophisticated equipment. Its programme includes airborne geo-physical operations and ground water explorations. The Indian Bureau of Mines undertakes mineral conservation and ore dressing activities. It also takes up consultancy services for small mine owners. In petroleum, provision has been made for exploration of oil and expansion of refinery capacity in line with projected growth in consumption of petroleum products. The provision for the Atomic Energy Department takes into account the need for surveying and prospecting of atomic minerals and the requirements of supporting programme in mining and industries in accordance with the nuclear power development envisaged in the Fourth Plan. Projects fostering the rapid growth of the electronics industry have been included.

In order to maintain continuity of growth, advance action would need to be taken during the Fourth Plan in some directions so as to bring additional capacity into being in the early years of the Fifth Plan.

PUBLIC SECTOR

The public sector in India's industry comprises: (i) long-established public utilities like the Railways, Road Transport Services, Ports, Posts and Telegraphs, Power and Irrigation projects; (ii) departmental undertakings of the Central and State Governments—many of them established under the Five Year Plans—such as the Chittaranjan Locomotive Works, the Integral Coach Factory at Perambur and various Defence Production establishments; and (iii) a number of other industrial undertakings which derive their finances almost wholly from the Central Government in the form of equity capital and loans. While the first of these categories has been dealt with at length in other chapters of this book and details of the working of the second and third categories are given later in this chapter, some salient features of the third category are given below.

On 31 March 1971, there were 97 such Central Government public undertakings, which included five subsidiaries and two consortia, with a total investment of Rs 4,682 crores. The number of such units and the growth of investment in them since the commencement of the First Five Year Plan is shown in Table 17.1.

TABLE 17.1
GROWTH OF INVESTMENT IN PUBLIC SECTOR

Period	Total investment (Rs crores)	No. of Units
At the commencement of the First Plan	29	5
At the commencement of the Second Plan	81	21
At the commencement of the Third Plan	953	48
At the end of the Third Plan (as on 31 March 1966)	2,415	74
As on 31 March 1967	2,841	77
As on 31 March 1968	3,333	83
As on 31 March 1969	3,902	85
As on 31 March 1970	4,301	91
As on 31 March 1971	4,682	97

These enterprises operate in diverse fields, *e.g.*, steel, heavy and light engineering, fertilizers and basic chemicals, drugs, mining and minerals, petroleum, ship-building and repairs, aviation, and trading. There are also some enterprises of a promotional, developmental or financial nature, *e.g.*, the National Small Industries Corporation, the Life Insurance Corporation, the Export Credit Guarantee Corporation, etc.

Total investment in the steel and engineering and ship-building groups on 31 March 1971 was Rs 1,538 crores and Rs 1,087 crores respectively. Investments in some other fields were Rs 534 crores in chemicals, Rs 399 crores in petroleum, Rs 410 crores in mining and Rs 263 crores in shipping and aviation.

The public sector has come to occupy a leading role in the case of steel, petroleum refining and fertilizers. Sector-wise distribution of investment in the recent years is shown in Table 17.2.

The investment, sales turnover and net profits of 15 major undertakings in the steel and engineering group and 25 undertakings in the other groups for 1970-71 are shown in Table 17.3.

Several public sector undertakings pay large sums to the exchequer as excise duty. In 1970-71, the payment by Hindustan Steel and other running enterprises as excise duty amounted to Rs 394.4 crores. The foreign exchange earnings of the enterprises totalled Rs 188 crores. In addition, the public sector trading undertakings handled direct export business of Rs 96.34 crores in 1970-71. To bring in perspective the role of the public sector in the national economy, one may refer to what the Prime Minister wrote in the preface of the Fourth Plan. "There can be no doubt," she wrote, "that the responsibilities devolving upon the public sector — without diminishing those of the private sector, in our mixed economy — will grow in range and volume. Socialism involves a reordering of society on a rational and equitable basis and this can only be achieved by assigning an expanding role to the public sector. Following the reorganisation of credit policies resulting from the nationalisation of major banks, the public sector can be expected more and more to occupy the commanding heights of the economy. It alone would be in a position to undertake investments of the requisite magnitude in such industries of vital importance to us as steel, machinery, machine tools, power generation, ship-building, petro-chemicals, fuels and drugs......In addition to the fight against poverty and economic inequalities, the (Fourth) Plan seeks to enlarge the area of self-reliance in terms of financial resources and technological inputs. Here too, the public sector has an important part to play."

TABLE 17.2

SECTOR-WISE DISTRIBUTION OF INVESTMENT IN PUBLIC SECTOR UNDERTAKINGS

(*Rs crores*)

Sector	1962–63		1965–66		1968–69		1969–70		1970–71	
	Inv.	%	Inv.	%	Inv.	%	Inv.	%	Inv.	%
1. Steel	724	51.38	981	40.62	1,305	33.44	1,419	32.99	1,538	32.9
2. Engineering	198	14.05	490	20.30	960	24.60	1,020	23.72	1,087	23.2
3. Chemicals	135	9.58	220	9.11	421	10.80	489	11.37	534	11.4
4. Petroleum	110	7.81	295	12.22	403	10.33	399	9.29	399	8.5
5. Mines and minerals	106	7.52	181	7.49	299	7.66	368	8.56	410	8.8
6. Aviation and shipping	80	5.68	120	4.97	155	3.97	185	4.30	263	5.6
7. Trading	—	—	15	0.62	268	6.87	314	7.30	313	6.7
8. Miscellaneous	50	3.55	106	4.38	84	2.15	100	2.32	133	2.8
9. Financial institutions	6	0.43	7	0.29	7	0.18	7	0.18	5	0.1
TOTAL	1,409	100.00	2,415	100.00	3,902	100.00	4,301	100.00	4,682	100.00

TABLE 17.3
INVESTMENT AND PROFITS OF MAJOR PUBLIC SECTOR UNDERTAKINGS 1970-71

(Rs lakhs)

Sl. No.	Name of the undertaking	Investment	Sales/ turnover	Net profit/ loss(—)
1.	Hindustan Steel	1,03,622	41,735	(—)4,72
2.	Garden Reach Workshops	792	689	81
3.	Mazagon Dock	1,028	941	67
4.	Praga Tools	669	171	(—)30
5.	Hindustan Teleprinters	229	353	56
6.	Indian Telephone Industries	950	2,594	1,83
7.	Hindustan Cables	707	754	(—)1
8.	Hindustan Shipyard	1,210	637	31
9.	Hindustan Machine Tools	2,988	2,043	Negligible
10.	Bharat Electronics	1,200	2,635	256
11.	Heavy Electricals (India)	12,549	2,669	(—)582
12.	National Instruments	818	70	(—)135
13.	Heavy Engineering Corporation	26,922	2,525	(—)1,833
14.	Tungabhadra Steel Products	101	24	1
15.	Bharat Earth Movers	2,120	2,667	289
16.	Hindustan Aeronautics	20,910	7,017	467
17.	Bharat Heavy Electricals	17,682	3,979	65
18.	Mining & Allied Machinery Corporation	6,045	473	(—)645
19.	Fertilizers & Chemicals, Travancore	7,389	3,170	(—)212
20.	National Newsprint and Paper Mills	1,196	420	(—)47
21.	Hindustan Antibiotics	247	683	14
22.	Hindustan Insecticides	126	283	16
23.	Hindustan Photo Films Mfg. Co.	1,666	366	(—)289
24.	Fertilizer Corporation of India	22,945	7,802	167
25.	Indian Drugs & Pharmaceuticals	8,151	1,379	(—)787
26.	Indian Rare Earths	330	226	34
27.	National Coal Development Corporation	19,486	4,405	(—)96
28.	Neyveli Lignite Corporation	17,326	2,798	(—)1,106
29.	National Mineral Development Corporation	5,993	3,389	(—)262
30.	Oil & Natural Gas Commission	21,823	3,925	941
31.	Indian Oil Corporation	12,174	72,362	2,032
32.	Cochin Refineries	1,996	3,742	249
33.	State Trading Corporation of India	2,961	22,231	50
34.	Minerals & Metals Trading Corporation of India	362	25,901	203
35.	Food Corporation of India	27,947	68,808	19
36.	Air India	7,329	7,350	387
37.	Indian Airlines	7,305	4,449	(—)469
38.	Shipping Corporation of India	10,932	6,484	874
39.	Engineers (India)	25	278	36
40.	Modern Bakeries (India)	355	402	9

PRINCIPAL INDUSTRIES

INDUSTRIAL PRODUCTION

Production in selected industries in different years since 1950-51 is given in Table 17.4. The index numbers (base 1960=100) of industrial production for 1951, 1961, 1969, 1970 and 1971 are given in Table 17.5. The general index for 1971 stands at 186.2 showing a growth rate of 3 per cent over 1970 as against a growth rate of 4.8 per cent registered during 1970 over 1969 and 7.1 per cent during 1969 over 1968. The fall in growth rate is due to a decline in the output of coal, steel, cotton textiles and sugar.

COTTON TEXTILES

The origin of the cotton textile industry, the largest single industry of the country, dates back to 1,818 when the first cotton mill was established at Fort Gloster near Calcutta. The grant of protection and the Swa-

TABLE 17.4

PRODUCTION IN SELECTED INDUSTRIES

Sl. No.	Industry (unit)	1950–51	1960–61	1965–66	1967–68	1968–69	1969–70	1970–71
I.	*Mining*							
1.	Coal (lakh tonnes)	328	555	703	720	745	800	750
2.	Iron ore (lakh tonnes)*	30	110	180	191	212	212	225
II.	*Metallurgical Industries*							
3.	Pig iron (lakh tonnes)	16.9	43.1	70.9	68.9	77.3	73.9	69.9
4.	Steel (lakh tonnes)	14.7	34.8	65.3	63.2	65.0	64.3	61.4
5.	Finished steel (lakh tonnes)	10.4	33.9	45.1	40.0	47.0	48.0	44.8
6.	Steel castings ('000 tonnes)	—	34	57	51	49	46	52
7.	Aluminium (virgin metal) ('000 tonnes)	4.0	18.3	62.1	100.4	125.3	135.1	167.8
8.	Copper (virgin metal) ('000 tonnes)	7.1	8.5	9.4	9.3	8.8	9.8	9.3
III.	*Mechanical Engineering Industries*							
9.	Machine tools (Rs crores)	0.34	7.00	29.43	28.52	24.78	32.90	39.30
10.	Railway wagons ('000 no.)**	2.9	8.2	23.5	17.6	15.8	14.9	11.1
11.	Automobiles ('000 no.)†:	16.5	55.0	70.7	69.5	78.0	79.8	87.9
	i) Commercial vehicles ('000 no.)	8.6	28.4	35.3	38.8	34.4	35.5	41.2
	ii) Passenger cars, etc. ('000 no.)	7.9	26.6	35.4	30.7	43.6	44.3	46.7
12.	Motor cycles and scooters ('000 no.)	—	19.4	40.7	56.6	70.8	91.0	97.0
13.	Power-driven pumps ('000 no.)	35	109	244	288	322	359	259
14.	Diesel engines (stationary) ('000 no.)	5.5	44.7	93.1	114.0	119.5	134.2	68.6
15.	Bicycles ('000 no.)	99	1,071	1,574	1,684	1,957	1,976	2,027
16.	Sewing machines ('000 no.)	33	303	430	370	429	340	235
IV.	*Electrical Engineering Industries*							
17.	Power transformers (lakh kvs)	1.8	14.1	44.6	53.3	47.3	56.6	80.8
18.	Electric motors ('000 hp)	99	728	1,753	2,028	1,861	2,283	2,774
19.	Electric fans (lakh no.)	2.0	10.6	13.6	13.8	14.9	15.5	17.1
20.	Electric lamps (lakh no.)	140	485	721	791	978	988	1,201
21.	Radio receivers ('000 no.)	54	282	606	929	1,485	1,746	1,794
22.	Electric cables and wires:							
	i) Aluminium conductors ('000 tonnes)	1.7	23.6	40.6	72.6	55.4	61.2	64.2
	ii) Bare copper conductors ('000 tonnes)	5.0	10.1	3.1	0.8	0.9	2.1	0.7

V. *Chemical & Allied Industries*							
23. Nitrogenous fertilizers ('000 tonnes of N)	9	101	232	354	541	716	830
24. Phosphatic fertilizers ('000 tonnes of P_2O_5)	9	53	122	195	210	222	229
25. Sulphuric acid ('000 tonnes)	101	368	662	858	1,034	1,197	1,155
26. Soda ash ('000 tonnes)	45	152	331	371	403	427	449
27. Caustic soda ('000 tonnes)	12	101	218	278	314	354	364
28. Paper and paper board ('000 tonnes)	116	350	558	630	659	723	755
29. Rubber tyres:							
i) Automobile tyres (lakh no.)	8.7	14.4	23.1	24.7	34.2	36.2	37.9
ii) Bicycle tyres (lakh no.)	33.0	111.5	184.6	227.9	247.8	213.2	197.0
30. Cement (lakh tonnes)	27.3	79.7	108.2	114.8	122.4	138.0	144.0
31. Refractories ('000 tonnes)	227	567	695	749	630	685	743
32. Petroleum products, refined (lakh tonnes)	2	58	94	138	154	166	170
VI. *Textile Industries*							
33. Jute textiles ('000 tonnes)	837	1,097	1,302	1,156	998	944	958
34. Cotton yarn (crore kg)	53.4	80.1	90.7	92.6	95.8	96.2	92.9
35. Cotton cloth (total) (crore metres):	421.5	673.8	744.0	751.1	790.8	775.3	759.6
i) Mill sector (crore metres)	340.1	464.9	440.1	425.8	429.8	419.2	405.5
ii) Decentralised sector (crore metres)	81.4	208.9	303.9	325.3	360.7	356.1	354.1
36. Rayon yarn ('000 tonnes)[1]	2.1	43.8	75.6	92.2	99.2	98.8	100.1
37. Art silk fabrics (crore metres)	28.7£	54.4£	87.8	93.3	100.2	86.3	94.7
38. Woollen manufactures:							
i) Woollen and worsted yarn (lakh kg)	87	130	170	168	189	188	197
ii) Woollen and worsted fabrics (lakh metres)	61£	133£	92	92	126	122	143
VII. *Food Industries*							
39. Sugar (Nov.-Oct.) (lakh tonnes) @	11.3	30.3	35.1	22.5@	35.6@	42.6@	37.4@
40. Tea (crore kg)	27.7	32.0	37.1	37.8	49.0	40.1	42.1
41. Coffee ('000 tonnes)	21.0	54.1	62.1	72.6	66.2	64.6	71.8
42. Vanaspati ('000 tonnes)	170	340	401	423	466	477	558
VIII. Electricity (generated) ‡ (billion kwh)	5.3	17.0	32.0	39.5	44.9	51.4	55.8

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*Excludes output in Goa. **Excludes output in Railway workshops. †Includes landrovers, jeeps, utilities, station wagons and vans.

‡Relates to public utilities only. [1] Includes viscose yarn, staple fibre and acetate yarn. £ Relates to calendar year.

@Sugar year has been changed to Oct.–Sept. from 1967–68 season onwards.

TABLE 17.5

Index Numbers of Industrial Production

(Base 1960=100)

Group	1951	1961	1966	1969	1970	1971	Percentage change in 1971 over 1970
General Index	54.8	109.1	152.4	172.5	180.8	186.2	+ 3.0
Mining and quarrying	66.6	105.4	136.1	147.4	149.0	153.4	+ 3.0
Food manufacturing	66.9	108.6	128.7	137.0	157.5	157.6	+ 0.1
Beverages and tobacco	58.0	107.0	158.2	164.0	172.3	182.3	+ 5.8
Textiles:	79.7	102.8	108.9	109.5	109.7	106.3	— 3.1
Cotton textiles	—	104.8	106.5	111.7	111.8	105.2	— 5.9
Woollen textiles	—	99.3	129.6	154.3	161.6	181.6	+12.4
Jute textiles	—	89.1	100.4	77.8	85.1	94.7	+11.3
Footwear (leather)	63.5	115.4	184.2	177.2	161.3	168.1	+ 4.2
Wood and cork, except furniture	43.5	95.5	205.1	256.6	198.7	224.1	+12.8
Paper and paper products	38.5	105.8	160.0	201.4	216.2	225.8	+ 4.4
Leather and fur products	72.4	100.9	120.9	88.9	65.3	55.3	—15.0
Rubber products	56.1	112.9	160.2	215.5	215.7	241.8	+12.1
Chemicals and chemical products	42.4	113.4	168.4	217.5	236.5	253.3	+ 7.1
Petroleum refinery products	11.0	106.0	195.9	280.0	297.3	316.9	+ 6.6
Non-metallic mineral products	39.0	106.9	148.1	175.2	189.1	207.0	+ 9.5
Basic metal industries	46.5	118.7	189.6	309.7	205.5	208.8	+ 1.6
Metal products	30.7	112.4	208.4	205.1	219.0	234.1	+ 6.9
Machinery, except electrical machinery	22.2	121.2	291.2	349.1	369.5	373.6	+ 1.1
Electrical machinery, apparatus, appliances, etc.	26.3	110.0	225.1	322.6	362.7	404.8	+11.6
Transport equipment	19.6	116.7	156.6	135.4	132.0	122.1	— 7.5
Miscellaneous manufacturing industries	—	102.7	109.6	103.3	120.1	116.9	— 2.7
Electricity generated	35.7	116.3	207.8	301.1	334.0	358.5	+ 7.3

deshi movement enabled the industry to make rapid strides. The number of mills increased to 389 in 1939 with 2,02,464 looms. In 1947, the yarn production was 59.7 crore kg and piecegoods production 350.9 crore metres. Cotton yarn production in1971 was 88.1 crore kg and cotton cloth production by the mill industry amounted to 395.7 crore metres. The decentralised sector of handlooms and powerlooms produced 339.9 crore metres of cotton cloth, the total cloth production of the mills and decentralised sector being 735.6 crore metres. Production of cotton yarn and cloth since 1950-51 has been shown in Table 17.4.

By the end of 1971, the cotton textile industry consisted of 670 mills (379 spinning mills and 291 composite mills). The total installed capacity in these mills was 180.74 lakh spindles and 2.08 lakh looms. The number of workers stood at 9.47 lakhs.

JUTE

As the biggest earner of foreign exchange for India, the jute industry occupies an important place in the country's economy. The first power-driven jute mill was established in Rishra near Calcutta in 1859 and thereafter the industry made rapid progress. The number of mills had increased to 90 by 1925-26 and it stood at 106 at the time of the partition of the country. The partition deprived the industry of its vital raw material. In 1947-48, India produced only 16.5 lakh bales of jute as against the pre-Partition output of 65-70 lakh bales. Production of jute goods during 1971-72 stood at 12,73,300 tonnes, registering an increase of 19.9 per cent over 1970-71. Table 17.4 shows the progress of jute industry since 1950-51.

During 1971-72, exports of jute goods were 7,89,000 tonnes as against 5,59,000 tonnes during 1970-71. While exports of hessian and sacking increased by 59,400 tonnes and 48,500 tonnes respectively, compared with those of 1970-71, the increase in export of carpet backing cloth was quite impressive in that it went up by 69 per cent.

The Government set up in April 1971 the Jute Corporation of India Ltd., with headquarters at Calcutta. It will undertake price support, commercial and buffer stock operations as also import and export of raw jute.

The Jute Textiles Consultative Council advises the Government on the jute industry, particularly in regard to its development, production, diversification, modernisation, export, etc.

SUGAR

The sugar industry ranks second among the major industries of India, next to textiles. Besides employing over 2.3 lakh workers, the industry sustains about 2.5 crore agriculturists. The industry received great impetus after the grant of protection in 1931. The number of factories increased from 31 in 1931 to 139 in 1950-51 and to 215 in 1969-70; production increased from 1.63 lakh tonnes in 1931 to 11.34 lakh tonnes in 1950-51 and to 42.62 lakh tonnes in 1969-70—a record. However, the production during 1970-71 was only 37.40 lakh tonnes. The progress of the industry since 1950-51 has been given in Table 17.6.

TABLE 17.6
GROWTH OF SUGAR INDUSTRY

Year	1950–51	1955–56	1960–61	1965–66	1969–70	1970–71
No. of mills	139	143	174	200	215	215
Production* ('000 tonnes)	1,134	1,890	3,021	3,541	4,262	3,740

*Up to 1966-67, the sugar year was November-October and later on it was changed to October-September.

After Independence there has been a remarkable expansion of the sugar industry in the co-operative sector. Out of 215 working factories in the country at present, more than 70 are co-operatively owned, producing nearly a third of the sugar output.

The Government of India have set up a Commission of Inquiry on Sugar Industry to undertake a comprehensive examination of its various problems.

The Fourth Plan envisages an output of 47 lakh tonnes to be achieved by 1973-74. This was based on the assumption that by that time about 42 lakh tonnes of sugar will be required for internal consumption and 5 lakh tonnes for export and buffer stocks. The internal consumption during 1970-71 was 40.25 lakh tonnes.

The Government decided to follow a policy of statutory partial control on sugar from 1 July 1972. Under the scheme, 60 per cent of the monthly releases are obtained at the notified prices for meeting emergent requirements and distribution to consumers through fair price shops; 3.5 per cent is for meeting export commitments and 36.5 per cent is available for free sale.

CEMENT

Manufacture of cement was first started in Madras in 1904. A real beginning on a large scale, however, took place with the formation of three companies in 1912-13. Total production of cement in 1950-51 was 27 lakh tonnes, which increased to 150 lakh tonnes in 1971-72. The distribution of cement was entrusted to the Cement Controller under the Cement Control Order, 1967. The Cement Corporation of India Ltd., a Government owned company, was set up with the objectives of surveying, prospecting and proving of limestone deposits in the country, establishing cement manufacturing capacity and promoting ancillary and supporting activity for building up the industry. The growth of the industry is traced in Table 17.4.

Asbestos Cement

The installed capacity of asbestos cement products is 5.6 lakh tonnes spread over nine units. Production in 1970 was about 3.61 lakh tonnes (compared to 2.96 lakh tonnes in 1969). The production of asbestos cement is expected to be stepped up to 5.45 lakh tonnes by 1973-74.

PAPER AND PAPER BOARD

Production of machine-made paper in India dates back to 1870, when the Bally Mills was established near Calcutta. During World War II, the number of mills increased to 15 and production reached 1,03,884 tonnes (1944). Rapid progress has been made since 1950. There are at present 59 units producing paper and paper board with a total capacity of 9 lakh tonnes per annum. The production of paper and paper board has been shown in Table 17.4.

Newsprint

The first and the only newsprint mill in India, namely, the National Newsprint and Paper Mills Ltd., Nepanagar (Madhya Pradesh), went into production in January 1955. It has an installed capacity of 30,000 tonnes which is being increased to 75,000 tonnes.

As envisaged in the Fourth Plan, the estimated capacity for paper and actual production will be 10l akh tonnes and 8.5 lakh tonnes respectively, by 1973-74.

PHOTO PAPER AND FILMS

The Hindustan Photo Films Manufacturing Co. Ltd., was set up at Ootacamund in November 1960 by the Government of India in collaboration with a French firm for the manufacture of cine, X-ray, roll and graphic art films and photo paper. Estimated to cost

Rs 11.64 crores, the project has been licensed for a capacity of 87.1 lakh sq. m per year and has an installed capacity of 61.5 lakh sq. m During 1971, it produced about 29 lakh sq. m. of various kinds of photographic materials valued at Rs 470.68 lakhs as against 24 lakh sq. m valued at Rs 391.98 lakhs during 1970.

IRON AND STEEL

The earliest successful attempt at the manufacture of iron and steel by modern methods was made in 1874. The Tata Iron and Steel Works was set up at Jamshedpur in 1907. In 1950, 15 lakh tonnes of pig iron and over 10 lakh tonnes of steel was produced. Table 17.4 shows the progress of the industry since 1950-51.

During the Second Plan, work on the expansion of the two existing steel plants—the Tata Iron and Steel Co. (TISCO) and the Indian Iron and Steel Co. (IISCO)—was started. TISCO were to increase their production to 20 lakh tonnes of steel ingots (15 lakh tonnes of finished steel) and Indian Iron to 10 lakh tonnes of steel ingots (8 lakh tonnes of finished steel). The expansion programmes of both have been completed.

The Mysore Iron and Steel Ltd.'s programme of expansion to increase its production of mild steel to one lakh tonnes was also completed. The programme to produce 77,000 tonnes of alloy and special steel at the works is progressing. Pig iron production capacity is also to increase to 2 lakh tonnes a year.

Hindustan Steel Ltd.

Three integrated iron and steel plants in the public sector with an initial capacity of 10 lakh tonnes each were set up at Rourkela, Bhilai and Durgapur during the Second Plan period. The management of all the three vests in the State-owned Hindustan Steel Ltd. The authorised capital of the company is Rs 600 crores. As on 31 March 1972, the total Government investment in the company stood at Rs 1011·07 crores made up of equity capital of Rs 594·37 crores and long-term loans amounting to Rs 416·70 crores.

The present capacity of Rourkela steel plant is 18 lakh ingot tonnes. Production during 1971-72 was 8·23 lakh tonnes as against 10·38 lakh tonnes in the preceding year. Production during 1971-72 was adversely affected because the roof structure of the steel melting shop collapsed in July 1971 and this proved detrimental to the entire operation of the plant for a number of months.

The Bhilai steel plant has now a capacity of 25 lakh ingot tonnes. Production in 1971-72 was 19·54 lakh tonnes as against 19·40 tonnes in 1970-71. The plant's capacity is being expanded to about 40 lakh ingot tonnes and the expansion is expected to be completed by the end of 1976.

The production in the Durgapur steel plant, which has a capacity of 16 lakh ingot tonnes, was 7 lakh in 1971-72 tonnes as against 6.34 lakh tonnes in 1970-71, mainly on account of maintenance problems and disturbed industrial relations which affected production in most of the units of the plant.

Bokaro Steel Ltd.

The fourth steel plant in the public sector is being set up at Bokaro with technical and financial collaboration of the USSR under an agreement concluded on 25 January 1965. A new company, Bokaro Steel Ltd., was formed in early 1964, to own and operate this project. The authorised capital of the company is Rs 500 crores. The detailed project report submitted by the USSR authorities in December 1965 envisaged the construction in two stages of a 40 lakh ingot tonnes annual capacity plant which would be capable of expansion to 55 lakh tonnes. The first stage will have an annual capacity of 17 lakh ingot tonnes of steel and 8.8 lakh tonnes of foundry grade pig iron. The first stage is estimated to cost about Rs 760 crores. The USSR Government has made available a credit of 200 million roubles (equivalent to Rs 166.60 crores) to meet the foreign exchange cost of the plant. About 64 per cent of the plant and equipment, 92 per cent of the structural steel works and 78 per cent of the refractories required for the first stage of the plant will be procured from within the country.

The first stage of the plant is scheduled to be completed in 1973. To meet the anticipated increase in demand of flat products, it has been decided to accelerate the expansion of the plant under a "crash programme" so that a capacity of 25 lakh ingot tonnes would be in commission in 1974. The second stage is scheduled to be completed in 1975-76.

New Steel Plants

The Government's decision to set up three new steel plants at Salem in Tamil Nadu, Visakhapatnam in Andhra Pradesh and Vijayanagar near Hospet in Mysore State was announced on 17 April 1970. Land acquisition proceedings for the plants are under way.

The feasibility report on Salem steel plant was prepared in December 1971. It has been decided that the annual capacity of product-mix of the special steels plant at Salem would be as follows:

Stainless steel	70,000 tonnes
Silicon steel	75,000 tonnes
Other special steels	30,000 tonnes
Mild steel	20,000 tonnes

The project is estimated to cost Rs 340 crores.

The techno-economic feasibility reports on the Visakhapatnam and Vijayanagar steel plants were received in February 1972 and are under examination. These integrated steel plants are being designed for a production of about 20 lakh equivalent ingot tonnes capacity each and would be commissioned during the fifth Plan.

Projected Demand for Steel and Pig Iron

The projection of total demand for finished steel and pig iron in 1973-74 and 1978-79 both for indigenous consumption and for export are as follows:

TABLE 17.7
PROJECTION OF DEMAND FOR STEEL AND PIG IRON

(*lakh tonnes*)

	1973–74		1978–79	
	Finished steel	Pig iron	Finished steel	Pig iron
Domestic demand	71.2	19.5	109.7*	26.1
Exports	13.0*	10.0	18.0*	15.0
TOTAL	84.2	29.5	127.7	41.1

* Provisional.

Taking into account the capacity of the main producers and secondary producers in these years, a gap of 20.7 lakh tonnes of finished steel and 18.1 lakh tonnes of pig iron is indicated for 1973-74.

Similarly, in 1978-79 the gap is expected to be 64.2 lakh tonnes of finished steel and 29.8 lakh tonnes of pig iron.

Various steps are proposed to be taken to fill this gap, which include expansion of Bokaro steel plant to the capacity of 40 lakh ingot tonnes and expansion of Bhilai steel plant's capacity from 25 lakh ingot tonnes to 40 lakh ingot tonnes for production of plates and billets. In addition, the two integrated steel plants at Vijayanagar and Visakhapatnam and the special steels plant at Salem are scheduled to be commissioned in the Fifth Plan period.

Exports of pig iron and steel increased from 27,120 tonnes in 1963-64 to 16.2 lakh tonnes in 1968-69 but decreased to 13.5 lakh tonnes in 1969-70 and 9.98 lakh tonnes in 1970-71. Hindustan Steel has been the largest exporter. The main items of export are pig iron, bars and rods, structurals and rails.

Holding Company for Steel

The Government have decided to set up a holding company for steel and associated input industries like coking coal, iron ore, manganese ore, etc. It will own all the shares in the public sector corporations connected with these industries and own all Government shares in joint sector companies in this field. It will also act as the nominee of public sector financial institutions which possess shares in private sector companies for steel and associated input industries, refractory units and smaller steel producing organisations.

Besides the three steel plants, the Hindustan Steel also manages the alloy steel plant at Durgapur, fertilizer plant at Rourkela and other supporting facilities such as iron and coal mines, limestone and dolomite quarries and coal washeries.

The alloy steel plant at Durgapur has an ingot capacity of one lakh tonnes (60,000 tonnes of finished steel). The production during 1971-72 was 56,100 ingot tonnes as against 50,600 tonnes in the preceding year. It has been decided to expand the capacity of the plant to 3 lakh ingot tonnes.

The company has a Central Engineering and Design Bureau to provide consultancy and engineering services in the field of iron and steel. The Bureau also functions as technical adviser to the Department of Steel on matters connected with the iron and steel industry and as consultants to a number of other organisations.

Coal Washeries

For the supply of washed coal to the steel plants in the public sector, Hindustan Steel owns five coal washeries—one at Durgapur, two at Dugda and one each at Patherdih and Bhojidih.

ENGINEERING INDUSTRY

The Government have been trying to foster the growth of engineering industry, which was practically non-existent at the time of Independence. India has now become self-sufficient in a variety of engineering goods. A number of projects designed to build and fabricate a wide variety of machines and equipment have been taken up both in the public and private sectors. The country is currently producing industrial, electrical and construction machinery, machine tools and transport and agricultural equipment and a large number of other items (*see* Table 17.4).

Heavy Engineering, Heavy Mechanical and Industrial Machinery

Heavy engineering industries made rapid progress in 1971. Production of cast iron castings and alloy iron castings increased from 80,000 tonnes in 1970 to 1,14,500 tonnes in 1971, an increase of 43 per cent. Also, the production has been diversified. Production of M.I. castings also shot up from 15,600 tonnes in 1970 to 24,000 tonnes in 1971, an increase of 54 per cent. Some leading units are now exporting pipe fittings and automobile parts. Production of S.G. iron castings has also increased from 1,450 to 2,300 tonnes, an increase of over 60 per cent. S.G. bearings are now being used by the railways in place of non-ferrous bearings. This would save the country substantial foreign exchange. Steel castings production has also increased by seven per cent, *i.e.*, from 52,000 tonnes in 1970 to 56,000 tonnes in 1971.

There are at present three units manufacturing steel plant equipment, one in the private sector and two in public sector, namely, M/s Heavy Engineering Corporation, Ranchi, and M/s Triveni Structurals, Naini. The private sector unit has a total annual licensed capacity of 12,000 tonnes of machinery covering not only steel plant equipment but also other machinery items such as paper and pulp machinery, cement machinery and chemical machinery.

The Heavy Engineering Corporation Ltd., Ranchi, incorporated in December 1958, manages three projects, *viz.*, Heavy Machine Building Plant, Foundry Forge Plant and Heavy Machine Tools Plant. Total investment in the Corporation on 31 March 1972 was Rs 255.51 crores.

The Triveni Structurals Ltd. was set up at Naini, Allahabad, under an agreement of July 1965 between M/s VOEST of Austria and the Government of India (holding 51 per cent shares), to promote design and manufacture of more complicated steel structures, such as building structurals, power transmission towers, pressure vessels, crane ropeways, etc., up to 25,000 tonnes a year. Production during 1971-72 was about 11,000 tonnes.

The Tungabhadra Steel Products Ltd., Tungabhadra Dam, Mysore State, was started as a repair and maintenance shop in 1947. In February 1967, the Government of India acquired a controlling interest by investing Rs 51 lakhs. The company is engaged in the manufacture of structurals including gates and hoists, transmission towers and penstock pipes.

The Bharat Heavy Plate and Vessels Ltd., formed in June 1966, has been set up at Visakhapatnam, Andhra Pradesh, with Czech assistance, for the manufacture of equipment required by the fertilizer, petroleum, petro-chemical and other heavy chemicals and allied industries. The capacity is 23,000 tonnes a year. Initial fabrication started in July 1969. Total investment in the company is about Rs 21.07 crores.

Heavy mechanical industries produce transmission towers, various types of pipes and tubes, wire ropes, bright bars, welding electrodes, lifts, penstocks, railway wagons, steel doors, windows and rolling shutters, etc. Production of steel pipes and tubes was 2,18,348 tonnes during 1971 as compared to 2,15,578 tonnes in 1970, and of steel wire ropes about 20,000 tonnes against 20,145 tonnes. Production of bright bars in 1971 was 54,161 tonnes as compared to 46,294 tonnes in 1970. Wire ropes, bright bars and shaftings are also being exported. Production of penstocks during 1971 and 1970 was 8,273 tonnes and 7,164 tonnes respectively.

Production of transmission towers also increased from 47,545 tonnes in 1970 to 62,025 tonnes in 1971. Production of railway wagons, (in terms of four wheelers) however, declined from 10,489 in 1970 to 7,759 in 1971 .

The estimated value of production of selected industrial machinery for 1971 and 1970 (in brackets) is as follows: textile machinery (including spares and accessories) Rs 60 crores (Rs 55.60 crores), chemicals and pharmaceutical machinery Rs 18.33 crores (Rs 17 crores), sugar mill machinery Rs 16.60 crores (Rs 14.63 crores), conveyors, etc., Rs 9.50 crores (Rs 7.89 crores), reduction gears Rs 6 crores (Rs 5.47 crores), paper and pulp machinery Rs 5.16 crores (Rs 4.94 crores), cement mill machinery Rs 3.80 crores (Rs 8.41 crores), dairy machinery Rs 3.43 crores (Rs 2.47 crores). Among other items of production were jute mill machinery, metallurgical machinery, printing machinery, rice mill machinery, rubber machinery, weighing machinery, industrial filters and centrifuges, tea processing machinery, etc.

The coal mining machinery industry is now in a position to meet practically the entire requirements of the industry. The industry manufactures a wide variety of articles like coal cutters, loaders, haulages, winders, coal combines, conveyors, mine pumps, booster pumps, shuttle cars, mine locomotives, etc. At present, nine units are in production, both in the public and the private sectors. A public sector coal mining machinery project is run at Durgapur by the Mining and Allied Machinery Corporation Ltd., Durgapur. The project has been set up with Soviet assistance, with capacity for the manufacture of 45,000 tonnes a year of various items of underground coal mining equipment. Initial production commenced in 1964-65. Efforts are being made to diversify production. The investment in the company till 31 March 1972 was Rs 62.72 crores.

Light Mechanical Industries

Some of the important products of the light mechanical industries in India are bicycles and bicycle parts, balls and bearings, sewing machines and their needles, typewriters, time-pieces and watches and clocks, data processing machines, agricultural implements and machinery, stoves, safety razors, calculating machines, building hardware, steel furniture, industrial roller chains, etc. Production of these industries has increased many times in recent years. Many of these items are exported. Indian manufacturers are also assisting other developing countries to set up such industries. Production figures for 1971 and 1970 for some of these industries are—bicycles: 18.64 lakhs and 20.94 lakhs; ball and roller bearings: 1.90 crores and 1.75 crores; data processing machines: 5,890 and 4,926; sewing machines: 3,37,632 and 1,77,961; typewriters: 43,692 and 38,525; time-pieces: 7.40 lakhs and 7.03 lakhs; stoves (non-pressure type): 5,37,812 and 3,90,000.

Machine Tools

There were 81 major units manufacturing machine tools in the country at the end of 1971. They produced machine tools valued at Rs 37.18 crores. Apart from these, 22 factories produced machine tool accessories worth Rs 5.40 crores. Portable tools valued at Rs 2.46 crores were manufactured by six factories and plastic working machinery valued at Rs 2.96 crores by two units. Some of the important public sector undertakings are described below:

Hindustan Machine Tools Ltd. is a multi-unit company with an annual capacity of 1,000 machines per unit. Two of these units are at Bangalore and the others are at Pinjore (Haryana), Kalamassery (Kerala) and Hyderabad (Andhra Pradesh). Besides, the company has a watch factory at Bangalore, with an approved capacity of 3,60,000 watches per year. All these units are in production.

The company has planned to take up the manufacture of metal forming presses in its Hyderabad unit, agricultural tractors in its Pinjore unit and printing machinery in its Kalamassery unit. The company is setting up a watch factory at Srinagar with an annual capacity of 3,00,000 watches of ordinary type. The existing watch factory in Bangalore is being expanded to produce 2,00,000 automatic watches with calendar mechanism per annum. The Srinagar factory is expected to commence production in 1973.

The company exported machine tools valued at Rs 110 lakhs and watches valued at Rs 85,000 during 1970-71.

The Central Machine Tools Institute, Bangalore, was set up at a cost of Rs 1.22 crores. The Institute started functioning in July 1965. Its main activities comprise development of designing, training, standardisation, prototype manufacture, research and documentation.

The Machine Tool Corporation of India was incorporated in January 1967 for setting up a grinding machine tool plant at Ajmer with the assistance of Czechoslovakia with an authorised capital of Rs 4 crores. The company commenced production of universal tool grinding machines and crank shaft grinding machines in 1971 and produced eight machines worth Rs 28.71 lakhs.

Light Electrical Industries

The production of light electrical industries has gone up considerably in recent years. Estimated production of a few selected items in 1971 and the comparative figures for 1970 in brackets are G.L.S. and other lamps 11.12 crores (10.39 crores), fluorescent tubes 1.12 crores (1.05 crores), miniature lamps 4.08 crores (4 crores), electric fans 19,09,614 (15,73,610), dry battery cells 56.99 crores (49.21 crores), domestic refrigerators 87,000 (66,800).

Heavy Electrical Industries

These industries have registered a substantial increase in production in 1971 except in the case of electric motors where there has been a fall in production owing to reduced demand. The production of industrial and power boilers was worth Rs 39 crores in 1971 against Rs 30.93 crores in 1970. The industry also produced 23,65,432 h.p. of electric motors, 86,89,922 kva of transformers, 3,92,665 motor starters and 4,90,988 km of cables and wires in 1971 as compared to 28,44,474 h.p. of electric motors, 76,08,623 kva of transformers, 5,10,810 motor starters and 4,22,973 km of cables and wires in 1970.

For the manufacture of heavy electrical equipment there are two companies in the public sector, Heavy Electricals (India) Limited, Bhopal, and Bharat Heavy Electricals Limited. The former was incorporated in August 1956 in collaboration with a British firm. The project commenced production in July 1960. The authorised share capital of the company is Rs 50 crores. The company manufactures a wide variety of power plant equipment such as water turbines, steam turbines, generators, power transformers, instrument transformers, airblast circuit breakers, bulk oil circuit breakers, power capacitors, electrical traction motors, large AC and DC motors and power transformers with silicon diodes. The value of production during the last three financial years ending 1971-72 has been Rs 21.60 crores, Rs 25.50 crores and Rs 36.36 crores respectively.

The Bharat Heavy Electricals Limited incorporated in November 1964 consists of four units: Heavy Electrical Equipment Plant, Hardwar; High Pressure Boiler Plant, Tiruchirapalli; Heavy Power

Equipment Plant, Ramachandrapuram (Hyderabad) and Switchgear Unit, Ramachandrapuram. The value of production of Bharat Heavy Electricals Ltd. during the last three financial years ending 1971-72 has been Rs 44.60 crores, Rs 48.26 crores and Rs 61.14 crores respectively.

The Hindustan Cables Factory, a public sector undertaking, established at Rupnarainpur, West Bengal, began production in 1954. The factory produced 3.89 lakh cubic km of dry core cables, 1,142 tube km of coaxial cables and 33,762 cubic km of plastic wires and cables during 1970-71. Out of the four expansion projects of the company, plant for the manufacture of type 174 coaxial cables has already started production. In the case of the second project for the manufacture of aluminium sheathed cables at a sanctioned cost of Rs 254.97 lakhs, trial manufacture has already commenced. In the case of the third project for the expansion of the capacity of dry core cables at Rupnarainpur from 3,200 km to 8,000 km at a sanctioned cost of Rs 4.76 crores, additional items of plant and machinery are being procured. In the case of the fourth project for the manufacture of copper coated steel wire at a sanctioned cost of Rs 1.62 crores, production is expected to start soon.

Instruments

Nine units, including M/s Instrumentation Ltd., Kota, a public sector undertaking, produce industrial process control instruments. The value of production increased from Rs 5.72 crores in 1970 to Rs 6.77 crores in 1971.

Production of scientific, surveying, optical and mathematical instruments fell from Rs 2.57 crores in 1970 to Rs 2.41 crores in 1971. Out of this, M/s National Instruments and Ophthalmic Glass Ltd., Calcutta, a public sector undertaking, produced instruments worth more than Rs 60 lakhs. Production of X-ray and electro-medical equipment increased from Rs 1.51 crores to Rs 2.55 crores. A public sector undertaking, M/s Bharat Electronics Ltd., produced instruments worth Rs 25 lakhs. It is also producing X-ray tubes. Another firm started the production of E.C.G. paper for use in E.C.G. machines in October 1971.

The National Instruments Factory, Calcutta, was set up in 1830. In June 1957, it was converted into a Government company called the National Instruments Limited. In 1961, Ophthalmic Glass Project, Durgapur, was transferred to this company from Heavy Engineering Corporation. In March 1971, the company was renamed as National Instruments and Ophthalmic Glass Ltd.

The Jadavpur unit of the company manufactures precision instruments such as survey instruments, drawing office equipment, microscopes, binoculars, optical equipment, ophthalmoscopes, blood pressure measuring equipment, etc. In order to improve the economic viability of this plant, a number of diversification programmes have been taken up. The unit achieved a record production of Rs 107 lakhs during 1971-72 as against Rs 65 lakhs in the previous year.

The Ophthalmic Glass Project was set up at Durgapur with technical and financial collaboration of the USSR. It commenced commercial production in September 1968. This unit was separated from M/s National Instruments and Ophthalmic Glass Limited on 1 April 1972 and a new company called Bharat Ophthalmic Glass Limited has been formed. In April 1972, an agreement was signed with M/s MEDEXPORT of the USSR for the export of lenses worth Rs 4 lakhs

Automobiles

The production of commercial vehicles went up marginally from 40,594 in 1970 to 40,773 in 1971. The production of jeeps increased from 9,334 in 1970 to 11,053 in 1971 and of passenger cars from 35,829 to 38,642. Production of automobile ancillaries increased from Rs 97 crores in 1970 to about Rs 107 crores in 1971. The production of motorcycles, scooters, three-wheelers and mopeds during 1971 was 1,26,989 (including 67,212 scooters) against 1,17,206 (including 58,932 scooters) in 1970. In view of the increasing demand for scooters, a company has been formed for implementing a scooter project with the participation of the Government of India, M/s Innocenti of Italy and M/s Automobile Products of India Ltd., Bombay, the Government holding 51 per cent share capital. The factory is being located at Lucknow with a capacity of 1,00,000 scooters per annum.

CHEMICALS, DRUGS & PHARMACEUTICALS

Since Independence, chemicals and drugs industry has made steady progress. The total value of drugs and pharmaceuticals produced by large and medium scale drugs units was estimated at Rs 250 crores in 1970 and Rs 300 crores in 1971.

Indian Drugs and Pharmaceuticals Ltd.

The Indian Drugs and Pharmaceuticals Ltd., set up in 1961 with Russian collaboration, comprises the following:

(1) Antibiotics Plant, Rishikesh: This has been commissioned and production of penicillin and streptomycin has started.

(2) Synthetic Drugs Project, Hyderabad: It has started production of phenacetin, sulphanilamide and sulphadimidine. The plant produced 646 tonnes of bulk drugs in 1970-71.

(3) Surgical Instruments Plant, Madras: The plant went into production in September 1965. The production pattern of the plant has since been changed to suit the market requirements. Some 3,47,800 instruments valued at Rs 29.13 lakhs were exported to the USSR in 1970-71. The company secured export orders for 7,91,700 instruments worth Rs 59.66 lakhs in 1971.

Hindustan Organic Chemicals Ltd.

The Hindustan Organic Chemicals Ltd., Kolaba, another public sector undertaking, was set up to manufacture various organic chemicals and intermediates. The production schedule comprises 20 organic chemicals and intermediates. In addition, two plants for the manufacture of meta amino phenol and sulphuric acid were also commissioned during 1970-71.

Hindustan Antibiotics Ltd.

The Hindustan Antibiotics Limited, Pimpri (Poona), was incorporated in 1954. It produces penicillin, streptomycin, etc.

The company is implementing a 125 tonnes per annum vitamin C project which is expected to go into production in 1973 . The company has also in hand a 2,000 kg per annum neomycin sulphate project. Its first phase of 500 kg per annum capacity was commissioned in 1970-71 and the second phase of achieving the capacity of 2,000 kg per annum would be completed in 1973.

Hindustan Insecticides Ltd.

The Hindustan Insecticides Limited, New Delhi, incorporated in 1954, has two units, one at Delhi and the other at Alwaye (Kerala). Production of technical DDT at Delhi and Alwaye factories during 1971-72 was 2,746 and 1,347 tonnes respectively. Alwaye unit of the company also has a BHC plant, which commenced regular production during 1971-72. It produced 1,834 tonnes of BHC Technical which was 23 per cent more than the target. The combined sales turnover for 1970-71 was about Rs 283.35 lakhs as against Rs 231.31 lakhs in the previous year. The gross profit during 1970-71 was Rs 31.14 lakhs as against Rs 20 lakhs in the preceding year.

PETRO-CHEMICALS

The first petro-chemical plant of the Fertilizer Corporation of India for the manufacture of methanol was started in 1966. Since then there have been many important developments in the field. Two petro-chemical complexes of the Union Carbide India Ltd. and the National Organic Chemical Industries Ltd. started production in 1967 and 1968 respectively. As a result, the production of major petro-chemical products has now increased considerably. Production of plastics reached 1,13,000 tonnes in 1971, an increase of 19 per cent over 1970. Synthetic fibre production reached 17,257 tonnes in 1971, an increase of 8 per cent over 1970, and synthetic rubber production increased to 33,024 tonnes, an increase of 9 per cent over 1970.

The aromatics plant of the Indian Petro-chemicals Corporation, owned by the Government of India, in the Gujarat Complex will be commissioned soon.

The caprolactam project is being implemented by the Gujarat State Fertilizer Company Ltd., Baroda and is likely to be commissioned in 1973. With the commissioning of the caprolactam and DMT plants, two major synthetic fibres—nylon and polyester—would be produced from indigenous raw materials.

FERTILIZERS

The consumption of chemical fertilizers was almost unknown in India before Independence. In 1950-51, production of nitrogenous fertilizers (in terms of nitrogen) was only 9,000 tonnes. The importance of chemical fertilizers as an input for increasing agricultural production was gradually realised by the farmers. This resulted in great demand for chemical fertilizers. To meet this demand factories were set up in the public and private sectors. Production of nitrogenous fertilizers in 1971-72 was 9.52 lakh tonnes, 100 times more than 1950-51. Similarly, production of P_2O_5 also went up to 2.78 lakh tonnes as against 9,000 tonnes in 1951.

The capacity of plants under production is 14.64 lakh tonnes of nitrogen in the public sector factories at Sindri, Nangal, Trombay, Rourkela, Alwaye, Neyveli, Namrup, Gorakhpur and Madras and the private sector factories at Ennore, Varanasi, Baroda, Visakhapatnam, Kota and Kanpur together with by-products from coke oven plants. Another 15 factories at Durgapur, Cochin, Barauni, Namrup (Expansion), Talcher, Ramagundam, Haldia, Trombay (Expansion), Cochin II and Gorakhpur (Expansion) (all in the public sector), Goa, Kota (Expansion), Mangalore and Tuticorin (all in the private sector) and Kandla (in the co-operative sector) are under construction with a total capacity of about 23.02 lakh tonnes of nitrogen. Establishment of additional factories with a total capacity of about 9.41 lakh tonnes of nitrogen has also been approved in principle/or is being finalised.

Fertilizer Corporation of India

The Fertilizer Corporation of India Ltd., a public sector undertaking, has at present (as on 31 March 1972) five operating units and seven units under construction. The operating units are Sindri (Bihar), Nangal (Punjab), Trombay (Maharashtra), Gorakhpur (UP) and

Namrup (Assam). The units under construction are Durgapur (West Bengal), Barauni (Bihar), Namrup Expansion (Assam), Ramagundam (Andhra Pradesh), Talcher (Orissa), Sindri Rationalisation (Bihar) and Trombay Expansion (Maharashtra). Two new projects—Haldia (West Bengal) and Gorakhpur Expansion—have been sanctioned and entrusted to FCI for execution. In addition, preliminary steps for implementing a coal-based fertilizer project at Korba (MP) are being taken.

Other Public Sector Factories

The Rourkela fertilizer factory, an adjunct of the Rourkela steel plant, was commissioned in December 1962. During 1971-72 the factory produced 1.86 lakh tonnes of calcium ammonium nitrate or 46,600 tonnes in terms of nitrogen.

Another unit, set up at Neyveli and integrated with Neyveli Lignite Corporation, started production in March 1966. During 1971-72 it produced 43,169 tonnes of urea or 19,857 tonnes of nitrogen.

The Fertilizers and Chemicals (Travancore) Ltd. (FACT), an undertaking in which the Government of India hold majority shares, has a running unit at Alwaye and another under construction at Cochin with a capacity of 1,52,000 tonnes of nitrogen in the form of urea. Work on the second stage of the Cochin unit with the assistance of the World Bank is also under way. It will produce, on completion, 4,85,000 tonnes of NPK complex fertilizers and 7,500 tonnes of synthetic cryolite per annum.

In December 1966, the Madras Fertilizers Ltd., was formed to implement a new fertilizer project in collaboration with Amoco India Inc., USA. The factory has capacity for 3.6 lakh tonnes of complex fertilizers and 2.1 lakh tonnes of urea. It went into commercial production in October 1971.

Fourth Plan Target

The Fourth Plan target for fertilizer capacity is 23.91 lakh tonnes of nitrogen and 5.66 lakh tonnes of P_2O_5, against the consumption of 26 lakh tonnes of nitrogen and 8.10 lakh tonnes of P_2O_5.

MINING AND MINERALS

MINERAL RESOURCES

India is richly endowed with minerals. The estimated deposits of some of the principal minerals found in the country are given below:

Apatite & Phosphorite

Apatite deposits of commercial importance are known to exist in the Singhbhum district of Bihar and Visakhapatnam district of Andhra Pradesh. Deposits of phosphorite have been located in Rajasthan and Uttar Pradesh. Total reserves of phosphorite in these deposits have been estimated at about 26.35 million tonnes. Investigation for phosphorite is in progress in the Karbaria block of Udaipur district in Rajasthan.

Bauxite

The reserves of bauxite have been estimated at 220 million tonnes. Important deposits occur in Bihar, Madhya Pradesh, Maharashtra, Mysore, Orissa and Tamil Nadu. Promising reserves have been located in Andhra Pradesh, Goa and Kerala.

Coal & Lignite

Coal deposits of economic significance occur in the Gondwana rock formation in West Bengal, Bihar, Orissa, Andhra Pradesh, Madhya Pradesh and Maharashtra and in the tertiary formation in Assam, Meghalaya, Arunachal Pradesh and Nagaland. The overall reserves of coal, both coking and non-coking, have been estimated to be 80,950 million tonnes. Of these, the reserves of coking coal in the Gondwana coalfields are about 20,155 million tonnes.

Significant reserves of lignite occur in Tamil Nadu, Gujarat, Jammu and Kashmir and Rajasthan. The total estimated reserves are about 2,100 million tonnes.

Chromite

Deposits of economic significance occur in Bihar, Orissa, Maharashtra, Mysore and Tamil Nadu. The total reserves of *insitu* chromite, including lump and fine varieties, are about 14 million tonnes.

Copper Ore

The important copper ore bearing areas are Singhbhum in Bihar, Khetri and Dariba in Rajasthan and Agnigundala in Andhra Pradesh. The aggregate reserves have been estimated at about 246 million tonnes.

Diamond

The Panna diamond belt, the only diamond producing area in the country, is spread over the districts of Panna, Chhatarpur and parts of Satna district in Madhya Pradesh as well as some parts of Banda district of Uttar Pradesh. The diamond field in the south is spread over the districts of Anantapur, Cuddapah, Kurnool, Krishna and Godavari in Andhra Pradesh and Bellary in Mysore.

Gold

There are three important groups of gold mines in the country, *viz.*, Kolar gold field, Kolar district, Mysore; Hutti mines, Raichur district, Mysore; and the Ramagiri gold fields, Anantapur district, Andhra Pradesh. Mysore is the only gold producing State.

Gypsum

Gypsum is produced mainly in Rajasthan and Tamil Nadu.

Ilmenite

It occurs mainly in the eastern and western coasts of India associated with the beach sands. Of the workable deposits of this type, those in Kerala are important. Total inferred reserves of ilmenite in beach sands have been estimated at 100 million tonnes.

Iron Ore

India is endowed with vast reserves of iron ore. Large deposits occur in Bihar, Orissa, Madhya Pradesh, Mysore and Goa. The estimated reserves of haematitic ore in the country, containing 55 per cent and more of iron, are about 8,150 million tonnes.

Lead-Zinc

The known reserves of lead-zinc ore in the country are located in Rajasthan and Gujarat. Lead ore deposits are known to exist at Agnigundala in Andhra Pradesh and Sargipalle in Orissa.

Manganese Ore

Important deposits of manganese ore are located in Madhya Pradesh, Maharashtra, Mysore, Bihar, Orissa, Andhra Pradesh, Gujarat, Rajasthan and Goa. The total measured, indicated and inferred reserves are 106 million tonnes.

Mica

Economic deposits of mica are confined to three important belts in Andhra Pradesh, Bihar and Rajasthan.

Nickel

Geological Survey of India has proved 15 million tonnes of nickel ore in Kansa, Cuttack district, Orissa. In addition, the extension blocks around Saruabil, close to Kansa, are likely to have another 20 million tonnes of nickel ore.

Oil

The potential oil-bearing areas are located in Assam, Tripura, Manipur, West Bengal, Ganga Valley, Punjab, Himachal Pradesh, Kutch, eastern and western coastal areas (in Tamil Nadu, Andhra Pradesh and Kerala), the Andaman and Nicobar Islands, the Laccadives and in the continental shelves adjoining these areas. However, the country's oil reserves can be estimated only in the light of the extensive programme of oil exploration which is now in progress.

Pyrite and Pyrrhotite

Geological Survey of India has proved substantial reserves of pyrite and pyrrhotite, about 20 million tonnes in the Amjhore field of Bihar and 31 million tonnes in Saladipura, Sikar district, Rajasthan.

Refractories

Important deposits of magnesite are found in Chalk Hills and adjacent areas in Salem district, Tamil Nadu (indicated reserves—12 million tonnes; inferred reserves—5 million tonnes), in Almora district, Uttar Pradesh (proved reserves—8 million tonnes) and in Mysore (proved reserves—0.12 million tonnes). The estimated reserves of sillimanite are about 0.3 million tonnes, of which nearly 0.2 million tonnes are in Sonapahar area of Meghalaya and 0.1 million tonnes in Pipra area of Madhya Pradesh. In the beach sands of Quilon, Kerala, the reserves of sillimanite bearing sands will be 13 million tonnes with 5-10 per cent sillimanite. Total estimated reserves of kyanite are 3.27 million tonnes in deposits occuring in Bihar, Maharashtra, Mysore and Orissa. The kyanite deposit around Lapsa Buru in the Singhbhum district of Bihar is the largest deposit of its kind in the world.

Airborne Mineral Surveys and Exploration

An airborne geophysical survey, designed to locate deposits of copper, lead, zinc and other metals like cobalt, nickel and molybdenum, was started by the Government of India in July 1967 in collaboration with USAID. Ground follow-up commenced in November 1968. The assessment of results achieved by detailed ground evaluation of select aero-anomalies has resulted in 21 targets for drilling. As a result of drilling in select targets, some significant zones of copper ore mineralisation in Bahargora area in Bihar and Chinchroli and Banera areas in Rajasthan have come to light. Zinc-lead mineralisation has been established in the Devpura-Dewas area of Rajasthan and Venkatayspalem in Andhra Pradesh.

The Government of India entered into an agreement with the BRGM (Bureau De Recherches Geologiques and Minieres)/CGG, Paris, in July 1970, for airborne geophysical survey over parts of Rajasthan, Gujarat, Madhya Pradesh and Mysore. The total area to be covered by such surveys is 80,000 sq. km BRGM/CGG had completed 1,23,372 line km of geophysical flight by the end of 31 May 1972 covering areas in Gujarat, Madhya Pradesh, Mysore and Rajasthan.

Mineral Production

The value of mineral production has increased by about five times during the last twenty years, from Rs 89.2 crores in 1951 to Rs 442.6 crores in 1971. The share of fuels group was the largest, *i.e.*, Rs 338.9 crores in 1971, followed by metallic minerals Rs 66.2 crores. The data on the value of mineral production in India excluding atomic minerals during 1951-71 is given in Table 17.8 and quantity and value of mineral production during 1970 and 1971 in Table 17.9.

TABLE 17.8
VALUE OF MINERAL PRODUCTION

(*Rs crores*)

	1951	1961	1966*	1969*	1970*	1971*
India	89.2†	181.2	327.9	466.2	485.6	442.6**

* The figures for 1966 and onwards exclude the value of common salt and include the value of petroleum and natural gas.

† Value of production from Goa not available.

** Excludes the value of minor minerals.

TABLE 17.9
QUANTITY AND VALUE OF MINERAL PRODUCTION

Mineral (Unit)	Total production			
	1970		1971	
	Quantity	Value (Rs '000)	Quantity	Value (Rs '000)
1	2	3	4	5
Total value of all minerals:		48,56,496‡		44,26,413**
Fuels: (total value)		34,87,118		33,89,992
Coal ('000 tonnes)	73,698	26,29,708	69,603[p]	25,03,211
Lignite ,,	3,545	89,856	3,660	92,769•
Natural gas† (million cubic metres)	676	32,154	753	37,162
Petroleum (crude) ('000 tonnes)	6,809	7,35,400	7,190	7,56,850
Metallic minerals (total value)		6,12,963		6,62,207
Bauxite ('000 tonnes)	1,370	17,463	1,491	18,141
Chromite (tonnes)	2,73,679	15,693	2,73,430	20,575[u]
Copper ore ('000 tonnes)	518	44,195	666	53,035
Diaspore (tonnes)	6,172	560	4,690	493
Gold[a] (kilograms)	3,241	67,379	3,656	76,339
Iron ore (total) ('000 tonnes)	31,366	3,68,005	33,719	3,91,754
Lumps ,,	23,398	2,83,572	24,124	2,93,236
Fines[b] ,,	7,968	84,433	9,595	98,518
Lead concentrates (tonnes)	3,880	4,827	4,262	5,302
Manganese ore ('000 tonnes)	1,673	77,185	1,779	77,603
Silver[a] (kilograms)	1,540	815	3,774	2,051
Wolfram ,,	34,900	1,080	29,522	1,174
Zinc concentrate (tonnes)	15,888	15,761	15,865	15,740
Non-metallic minerals		7,56,415‡		3,74,214**
Agate (tonnes)	743	130	724	116
Apatite & rock phosphates				
Apatite (tonnes)	15,997	982	11,307	742
Phosphate ,,	1,56,353	13,448	2,32,089	20,135
Asbestos ,,	10,056	2,111	11,045	2,121
Ball-clay ,,	8,472	112	9,311[u]	160[u]
Barytes ,,	74,843	1,443	58,166	1,378
Calcite ,,	16,839	262	17,681	252
Chalk ,,	47,609	809	48,366	838
China-clay (non-saleable crude) ('000 tonnes)	343	NA	380	NA
China-clay (saleable crude) ,,	204	1,667	218[u]	1,993[u]
China-clay (processed) ,,	99	8,409	105	10,193
Clay (others) ,,	94	100	169	172
Cordierite (tonnes)	789	89	—	—
Corundum ,,	407	218	316	161
Diamond (carats)	20,325	6,942	19,383	7,443
Diatomaceous earth ('000 tonnes)	—	—	87	3
Dolomite ('000 tonnes)	1,148	17,852	1,313	22,589
Emerald (crude) (carats)	11,625	NA	22,420	NA
Emerald (dressed) ,,	4,525	1	NA	NA
Felspar (tonnes)	29,625	275	36,388	332
Fireclay[c] ('000 tonnes)	551	4,591	524	4,305
Fluorite* (graded/sorted) (tonnes)	4,666	3,937	2,976	2,713
Garnet (abrasive) (tonnes)	988	45	1,338	52
Garnet (gem variety) (kilograms)	5,268	39	1,355	10
Gypsum ('000 tonnes)	921	8,829	1,073	11,308
Kyanite (tonnes)	1,19,126	26,108	82,113	19,524
Limestone & other calcareous materials				
Limestone ('000 tonnes)	23,801	2,30,231	24,953	2,13,256[u]
Limekankar ,,	381	784	440	1,362
Limeshell ,,	81	1,497	95	1,742
Calcareous sand ,,	996	1,209	1,023	1,209
Magnesite ,,	354	11,870	297	8,375
Mica (crude) (tonnes)	16,485	20,143	14,468	18,077

1	2	3	4	5
Mica (mine waste/scrap, etc.) (tonnes)	5,311	2,618	4,094	2,188
Ochre ,,	39,708	778	49,136	774
Pyrites ,,	25,643	5,427	40,886	8,230
Pyrophyllite ,,	13,922	381	11,375	231
Quartz and silica				
Quartz ('000 tonnes)	176	1,405	172	1,332
Quartzite ,,	100	1,596	114	2,124
Silica sand (including glass sand) ('000 tonnes)	282	3,183	287	2,874
Moulding sand ,,	59	301	63	260
Sand (others) ,,	621	1,043	933	1,659
Salt (rock) (tonnes)	4,017	504	3,845	481
Sapphire (raw/unwashed) (kilograms)	163	NA	—	—
Sillimanite (tonnes)	4,489	798	4,175	608
Slate ,,	633	81	725	109
Staurolite ,,	87	43	—	—
Steatite ('000 tonnes)	159	4,905	168	4,878
Tourmaline (tonnes)	14	..	—	—
Vermiculite ,,	1,530	63	495	12
Wollastonite ,,	576	25	2,039	81

NA—Not available.
†Relates to gas utilised.
*Includes the output from Madhya Pradesh (Unanalysed ore).
**Excludes the value of 'minor minerals' and atomic minerals.
‡Excludes the value of common salt and atomic minerals.
a—Relates to metals only.
b—Figures relate to despatches from mines for internal consumption/exports. However, in the case of Goa the figures relate to output.
c—Includes partly the production of fire clay incidentally recovered from the collieries.
e—Estimated. p—Provisional. u—Under reference. ..Negligible.

SOME ORGANISATIONS

Indian Bureau of Mines

The Indian Bureau of Mines was established in 1948. Gradually the scope and functions of the department were enlarged. These include mineral exploration by drilling and underground mining, periodic inspection of mines to ensure observance of conservation regulations and systematic development of mineral deposits, conducting ore beneficiation studies, collection and publication of mineral information and statistics. The Bureau also provides technical consultancy services to the mining industry and conducts research in special mining problems.

The publications of the Bureau include "Indian Mineral Year Book", "Monthly Bulletin of Mineral Statistics and Information", "Quarterly Journal of Mines and Minerals", etc. Preparation of inventory in respect of several minerals is in progress.

National Mineral Development Corporation Ltd.

The National Mineral Development Corporation Ltd. (NMDC) was set up in November 1958 for the exploitation of minerals other than oil and natural gas and coal.

The Corporation has developed the Kiriburu mine in Bihar/Orissa for the production of 20 lakh tonnes of iron ore per annum for export to Japan. The aggregate shipment up to the end of March 1972 was about 106 lakh tonnes, earning foreign exchange worth Rs 58.51 crores (approximately). The total production from this mine since its inception till the end of March 1972 was 110.71 lakh tonnes. This mine is being expanded to produce 50 lakh tonnes of run-of-mine ore and the expansion will be completed by mid-1973. The ore will be supplied to the Bokaro steel plant.

The other iron ore mine which the NMDC has developed is Bailadila Deposit No. 14, in Madhya Pradesh, for the production of 40 lakh tonnes of lump ore per annum for export to Japan. The mine commenced production in April 1968. Production from this mine since commencement till 31 March 1972 was 121.71 lakh tonnes out of which118.58 lakh tonnes were exported to Japan, earning foreign exchange worth Rs 84.05 crores. Another mine based on Bailadila Deposit No. 5 of similar capacity is also being developed and will be ready in 1974.

The NMDC has also undertaken the development of Donimalai iron ore mines in Mysore for the production of 17.5 lakh tonnes each of lumps and fines. This is expected to be completed by middle 1974. With foreign collaboration, the NMDC has prepared a project report on the magnetite iron ore deposits of Kudremukh in Mysore, which is now under the consideration of the Government.

The Corporation has prepared feasibility studies for setting up of pelletisation plants based on Donimalai and Bailadila iron ore fines which are now under the consideration of the Government.

The NMDC has developed the diamond mines in Panna (Madhya Pradesh). During 1971-72, 19,722 carats of diamonds were produced, and 22,666 carats were sold for Rs 43.94 lakhs.

Bharat Aluminium Company Ltd.

A Government company, the Bharat Aluminium Company Ltd., was set up in November 1965 to implement two aluminium projects: (1) a 50,000 tonnes per annum integrated aluminium project in the Ratnagiri area of Maharashtra, and (2) a 1,00,000 tonnes integrated aluminium project at Korba in Madhya Pradesh. The Korba project is scheduled to be commissioned in the first quarter of 1973, and the smelter and fabrication units in September 1974, reaching full capacity in 1975-76.

Hindustan Copper Ltd.

The Hindustan Copper Ltd., a public sector undertaking set up in November 1967, has taken over the management of the Indian Copper Corporation, Ghatsila, Bihar, from 10 March 1972. The Corporation is the only undertaking engaged in mining copper ore as well as producing copper in the country. The installed capacity is 9,600 tonnes per annum of fire refined copper. It has commissioned a new flash smelter of the installed capacity of 16,500 tonnes per annum.

The Hindustan Copper Limited has been entrusted with the task of exploiting the country's copper resources. The main project with the Company at present is the Khetri Copper Project, Rajasthan. This is being set up for the production of 31,000 tonnes of electrolytic copper per annum. About 2 lakh tonnes of TSP fertilizer will also be produced per annum as a by-product.

The Hindustan Copper Limited has also plans to develop copper deposits at Rakha Copper Project in Singhbhum district, Bihar, Agnigundala Copper Lead Project in Guntur district (Andhra Pradesh), Dariba Copper Project (Rajasthan) and Malanjkhand Copper Deposit in Balaghat district of Madhya Pradesh.

The production of copper metal in the country during 1969-70 and 1970-71 was 9,806 tonnes and 9,343 tonnes respectively.

Bharat Gold Mines (Pvt.) Ltd.

The Bharat Gold Mines (Private) Ltd., a public sector undertaking, took over the management of Kolar Gold Mining Undertaking, a departmental undertaking from 1 April 1972. Production of gold in 1971-72 was 22.47 lakh gm as compared to 21.78 lakh gm in 1970-71.

Zinc Smelters

There are at present two zinc smelters—one in the public sector, based on Zawar (Rajasthan) ore deposits, and the other at Alwaye (Kerala), based wholly on imported zinc concentrates, in the private sector—accounting for a total installed capacity of 38,000 tonnes per annum. However, both the smelters have been working below their rated capacities owing to technical reasons. The zinc smelters also produce cadmium and sulphuric acid as by-products. Sulphuric acid produced at Alwaye is supplied to the Fertilizers and Chemicals Ltd., Travancore, and the acid produced by the Hindustan Zinc Ltd, is utilised in the further production of single superphosphate.

The Fourth Plan envisaged doubling of the capacity of both the existing zinc smelters. Later, another 30,000 tonnes per annum smelter at Visakhapatnam (Andhra Pradesh) based on imported zinc concentrates, in the public sector, was included in the Plan. The Visakhapatnam zinc smelter will also produce cadmium and sulphuric acid as by-products apart from pig lead and zinc dust. The project will be commissioned in the Fifth Plan. The expansion of the public sector smelter is likely to be completed by the end of 1974.

There is at present only one lead smelter at Tundoo (Bihar) in the public sector which is also based on the Zawar ore deposits. The smelter is being modernised. Action has also been initiated to speed up the exploration of the lead-zinc ore deposits in Zawar and other areas in Rajasthan so as to further increase the production of lead-zinc metals in the country.

COAL

Coal mining was first started at Raniganj, West Bengal, in 1814. The construction of railways gave the industry an impetus and a number of joint stock companies, mostly European-owned and managed, came into the field. In 1868, coal production amounted to 5 lakh tons and it has been steadily increasing thereafter. In 1950, the production was 320 lakh tons and in 1955, it had reached 382 lakh tons. Production at the end of the Second and Third Five Year Plans was 556 lakh tonnes and 685.6 lakh tonnes, respectively. In 1969-70, it reached a record figure of 757.4 lakh tonnes. In 1971-72, the production was about 705 lakh tonnes (provisional), the decline being mainly due to the non-availability of adequate number of wagons for the transport of coal.

The largest coal production unit in the country is the National Coal Development Corporation Limited, a Central Government company, set up in October 1956. It has opened deep shaft mines for producing coking coal in the central Jharia coalfields in Bihar. There are also four coal washeries under it at Kargali, Kathara, Sawang and Gidi. Another public sector coal company is the Singareni Collieries Company Limited in which the Central and Andhra Pradesh Governments are collaborating. During 1971-72, these two public sector undertakings produced about 191 lakh tonnes of coal. In October 1971, pending nationalisation, the Government of India took over, under the Coking Coal Mines (Emergency Provisions) Act, 1971, the management of 214 coking coal mines and 12 coke oven plants, in order to reorganise them to ensure proper conservation of scarce coking coal resources. A Bill for taking over the rights, title and interest of these mines and plants was introduced in Parliament on 31 July 1972. The Government have set up a new company in the name of Bharat Coking

Coal Limited, with headquarters at Dhanbad, for the management of the taken over mines.

With the exhaustion of quality coking coal, the practice of cleaning coking coal by mechanical means has been increasingly adopted in India since 1951. Washeries with capacity for producing 142 lakh tonnes of washed coking coal have been established. Besides, one blendable coal washery is also ready for operation.

LIGNITE

The Integrated Neyveli Lignite Project originally envisaged the mining of 35.6 lakh tonnes of lignite per annum. The output would ultimately be increased to 60 lakh tonnes per annum.

The quantity and value of coal and lignite produced during 1970 and 1971 is given in Table 17.10.

TABLE 17.10
COAL AND LIGNITE PRODUCTION

Mineral	1970		1971	
	Quantity ('000 tonnes)	Value (Rs '000)	Quantity ('000 tonnes)	Value (Rs '000)
Coal	73,630	26,27 800	69,090	24,86,630
Lignite	3,544	88,691	3,724	1,02,176

OIL

Exploration for petroleum and setting up of oil refineries received proper attention only after Independence. Production of refined petroleum products was only 2 lakh tonnes in 1950-51, which increased to 182 lakh tonnes in 1971.

The production of crude oil in the country during 1971 was about 72 lakh tonnes from oilfields in Assam and Gujarat. The remaining requirement of about 124 lakh tonnes was met by imports.

There are two major organisations engaged in the exploration and production of crude oil in the country. These are the Oil and Natural Gas Commission, a public sector organisation, and the Oil India Limited.

Oil and Natural Gas Commission

The Oil and Natural Gas Commission has been carrying out oil exploration since 1956. The Commission had drilled 948 wells up to the end of March 1972. Of these, 516 were oil-bearing and 72 gas producing. Oil has been discovered in Ankleshwar, Nawagam, Kalol, Kosamba, Sanand, Kathana, Wavel, Bakrol, Dholka, Ahmedabad, Indrora, Balol, Santhol, Mehsana, Sobhasan, Kadi and Dabka structures in Gujarat, and Rudrasagar, Lakwa, Geleki, Borholla and Amguri structures in Assam. Crude oil produced at Ankleshwar, Kosamba, Kalol, Mehsana, Nawagam and Dholka is now being sent for refining to the public sector refinery owned by the Indian Oil Corporation at Koyali (Gujarat). Trial production from Lakwa and Rudrasagar oilfields in Assam continued during 1971-72 and the crude was sent for refining to IOC's Gauhati and Barauni refineries. Production from the ONGC oil fields during 1971-72 was just over 40 lakh tonnes.

The Commission has undertaken exploration for oil in the offshore areas. An agreement has been signed with a Japanese firm for supply of a self-propelled, jack-up type drilling platform which is expected to be delivered soon. Meanwhile, detailed seismic survey of some of the offshore areas along the western coast has been completed to pinpoint suitable locations for the commencement of drilling in the deep waters.

The Commission is also engaged in exploration for oil in an offshore concession in Iran through its subsidiary, Hydrocarbons India

Private Ltd., (HIPL), in partnership with AGIP of Italy, Philips Petroleum Company of the USA and the National Iranian Oil Company. It has struck oil in Rostum and Raksh fields in commercial quantities, which is being sold in the international market. The share of HIPL is one-sixth of the production from these fields.

Oil India Ltd.

Oil India Ltd., (OIL), in which the Government of India and Burmah Oil Company have equal shares, was incorporated in Assam in February 1959, for exploration and production of crude oil (including natural gas) in the Naharkatiya, Hugrijan and Moran areas in Assam and for the construction of a pipeline to transport crude oil produced in its oil fields to the Gauhati and Barauni refineries. OIL holds mining leases over an area of about 1,321 sq. km and exploration licence over an area of about 1,219 sq. km in North-Eastern India.

Up to December 1971, the company had drilled 311 wells and 2 exploratory wells. It supplies crude oil to the two public sector refineries at Gauhati and Barauni and to the private sector refinery at Digboi. A pipeline connects the oilfields with the Gauhati and Barauni refineries.

Lubes and Drum Plants

In order to plug the gaps of lube shortage in the country, the Indian Oil Corporation embarked upon a 50:50 joint venture with Mobil Petroleum Co. Inc., New York, and formed a new company, *viz.*, Indian Oil Blending Limited, to run two lube blending plants in Bombay and Calcutta and a grease manufacturing plant in Bombay. Besides, the Corporation has set up its own lube blending plant at Madras. The Corporation has also taken up the construction of a drum-making plant at Madras to cater to the production of lube and bitumen of the Madras refinery.

Indo-Burma Petroleum Company Ltd.

This Company became a subsidiary of the Indian Oil Corporation in January 1970 when IOC purchased a majority of equity share holdings from M/s Steel Brothers and Company Limited, UK.

Refineries

At the commencement of the First Plan, the major portion of the demand of the country for petroleum products was met by imports; the output of the only refinery in the country, belonging to the Assam Oil Company at Digboi, was just over 5 per cent of the total requirements. Three private sector refineries were set up as part of the First Plan. Two of these were set up at Trombay (near Bombay), one each by the Standard Vacuum Oil Company (now ESSO) of New York in 1954 and the Burmah-Shell group of London in 1955. The third one was set up by the Caltex Company at Visakhapatnam in 1957. In 1971, the throughput of these refineries was 85 lakh tonnes.

Nunmati

The public sector refinery at Nunmati (near Gauhati) with a refining capacity of 7.5 lakh tonnes, set up with the technical collaboration of the Rumanian Government, went into operation on 1 January 1962. It processed 8 lakh tonnes of crude oil in 1971.

Baraun

The refinery at Barauni, established in collaboration with the USSR Government, has a refining capacity of 30 lakh tonnes per annum. The refinery processed 22 lakh tonnes of crude oil in 1971.

Koyali

Another public sector refinery, established at Koyali near Baroda under the Indian Oil Corporation with financial and technical collaboration of the USSR, processes indigenous crude oil discovered in the

Gujarat region. During 1971, the refinery processed 36 lakh tonnes of crude oil.

Cochin

A public sector company, the Cochin Refineries Ltd.—with the Government of India holding majority shares and Phillips Petroleum Co. of the USA providing technical and financial collaboration—established an oil refinery with a capacity of 25 lakh tonnes per annum at Cochin in 1966. Its capacity is being increased to 33 lakh tonnes per annum. During 1971, the refinery processed 24.4 lakh tonnes of crude oil.

Madras

The Madras Refineries Ltd., a joint venture of the Government of India (owning majority shares), the National Iranian Oil Co. and AMOCO, a subsidiary of the Pan American International Oil Co., have set up a refinery at Manali near Madras. The refinery, which commenced production in June 1969, processed 21 lakh tonnes of crude oil during 1971.

Haldia

Under an agreement signed in 1967 by the Government of India with French and Rumanian firms, a refinery of 25 lakh tonnes capacity is being set up at Haldia near Calcutta by the Indian Oil Corporation. The refinery is to be commissioned in 1973.

Lubricating Oil Plant

In September 1965, the Government of India and Standard Eastern Inc. of the USA entered into an agreement to establish a lubricating oil plant at Trombay with equal financial participation. Set up at a cost of Rs 15.43 crores under Lube India Ltd., the plant commenced production in December 1969. The products of this company are marketed by the Indian Oil Corporation and ESSO in equal proportion.

Chemical Additives Plant

Under an agreement between the Government and the Lubrizol Corporation of the USA in 1965, a chemical additives plant was set up in Bombay. The capacity of the plant is being doubled to 12,000 tonnes per annum. During the year 1971 the company produced 8,894 tonnes.

The Government have decided to set up a 10 lakh tonne refinery at Bangaigaon in Assam together with a related DMT (Dimethyl terephthalate)/polyester fibre petro-chemical complex. The Government also propose to set up a new refinery with a capacity of 60 lakh tonnes at a suitable location in north-west India.

Engineering Consultancy

The Engineers India Limited was constituted in 1965 to promote indigenous capability for the engineering and designing of petroleum and chemicals processing plants. The company is providing services for setting up such plants both in the public and private sectors. The company has also started bidding for jobs in the international market and has secured a job in Iran (Shiraz refinery) in association with an Italian firm.

Pipelines

Prior to 1964 a pipeline had been constructed to transport the crude from the Naharkatiya oilfields to the Gauhati and Barauni refineries. Since then, various multi-product pipelines have been laid. These are Gauhati-Siliguri pipeline commissioned in 1964, Koyali-Ahmedabad and Barauni-Kanpur pipelines commissioned in 1966, and the Barauni-Haldia-Mourigram pipeline commissioned in 1967. There is also a network of pipelines in Gujarat for transporting crude from the Gujarat oilfields to the Koyali refinery. The Indian Oil Corporation constructed through its own expertise the Baradabar-Mourigram product pipeline and is now engaged in laying the Haldia-

Mourigram-Rajbandh product pipeline on the completion of which, the Haldia-Barauni pipeline will be used for transporting crude. New pipelines are contemplated in coming years for transporting crude from the Gulf of Kutch to the north-west refinery and to the Koyali refinery.

Marketing and Distribution

Indian Oil Corporation

The Indian Oil Corporation was set up on 1 September 1964 by amalgamating Indian Refineries Ltd. with the Indian Oil Company Ltd., with the object of securing effective co-ordination and control between the refineries and marketing activities, respectively of the two companies. The Corporation has two divisions, namely, Refineries and Pipelines Division, and Marketing Division. The Corporation has two subsidiaries, *viz.*, Indo-Burma Petroleum Co. Ltd. and Indian Oil International Ltd. The Corporation also holds 50 per cent equity shares of the Indian Oil Blending Ltd., a joint venture with the Mobil Petroleum Co. Inc., New York.

The Corporation distributes the products of the public sector refineries and is now the largest seller of petroleum products in the country. Total sales of the Corporation during 1971-72 were about 54 per cent of the total sales in the market. The number of retail outlets, which was 3,004 on 31 March 1971, rose to 3,153 at the end of March 1972. The Corporation is also marketing liquid petroleum gas (LPG) under the name "Indane" in 88 cities. By the end of 1971-72, the Corporation had established 287 barrel-fed outlets in the predominantly agricultural areas for supplies of LDO and lubricants for lift irrigation and other requirements of the farmers.

Research and Development

A Research and Development centre is being set up at Faridabad in Haryana at an estimated cost of Rs 2.5 crores. This centre will undertake the work of development of lubricants and will render technical and after sales service to customers.

Exports and Imports

For meeting marginal deficits and for disposal of surpluses from the public sector refineries, the Indian Oil Corporation has developed import and export markets. During 1970-71, the Corporation imported refined products and lube base stock valued at Rs 23.37 crores. The exports during the same period amounted to Rs 3.53 crores. During 1971 (from April to December 1971), the value of imports and exports amounted to Rs 23.15 crores and Rs 1.11 crores respectively. The Corporation has now taken over as the Government's agency for the canalised imports of base oils, etc.

PLANTATION INDUSTRIES

Tea, coffee and rubber plantations together cover only about 0.4 per cent of the cropped area; yet tea is the second largest foreign exchange earner for the country. These industries, concentrated largely in the north-east and along the south-west coast, employ over 12 lakh workers.

TEA

The area under tea cultivation was 3.1 lakh hectares with a production of 2,273 lakh kg in 1947. In 1955 the corresponding figures were 3.2 lakh hectares and 3,077 lakh kg. The 1971 production of tea was the highest ever recorded—4,282 lakh kg. Export earnings from tea in 1971 totalled Rs 160.3 crores as compared to Rs 148.8 crores in 1970.

Instant Tea

During the past few years there has been an increase in the production and export of instant tea. In the five-year period 1966-70, production increased ten-fold, from 30,354 kg in 1966 to 3.16 lakh kg in 1970. Foreign exchange earnings went up twenty times during the same period from barely Rs 5.35 lakhs to Rs 105 lakhs. In terms of quantity, exports went up from 13,608 kg to nearly 3.20 lakh kg.

Among the schemes for developmet and encouragement of the tea industry are the promotional activities in India and abroad of the Tea Board, grant of loans to tea gardens for extension or replantation and for acquiring machinery on hire-purchase basis. Research on tea is also given financial assistance.

COFFEE

Systematic cultivation of coffee was started in 1830. The area under coffee is 76,739 hectares under Arabica and 51,736 hectares under Robusta varieties. A record production of 1,09,000 tonnes was achieved in 1970-71. The 1971-72 crop was estimated at 60,000 tonnes. Under the 1968 International Coffee Agreement, India's export quota for 1971-72 was 21,975 tonnes.

Under the Coffee Board's development plan for increasing production, loans are given on long-and short-term basis to the small plantation holders. Besides, items of equipment and machinery worth Rs 221 lakhs had been made available to planters on hire-purchase up to 15 March 1972. Studies on fundamental and applied aspects of coffee and field experiments on cultural, manurial, plant protection problems and breeding have been conducted. In 1968, coffee replanting scheme was introduced for replacing of and low-yielding plants by high-yielding varieties. About Rs 56 lakhs were given to planters till 15 March 1972 in loans.

CARDAMOM

Cardamom is grown in Kerala (47,027 hectares), Mysore (28,223 hectares) and Tamil Nadu (6,317 hectares). Production is liable to wide fluctuations, depending on weather, rainfall, pests, etc. Production in 1969-70 was 2,300 tonnes compared to 2,000 tonnes in 1965-66, and 4,130 tonnes in 1963-64. Drought and a virus disease reduced production. As a result of the virus control scheme, production of cardamom increased from 3,170 tonnes in 1970-71 to 3,200 tonnes in 1971-72.

India, the largest exporter of cardamom, accounts for 70 per cent of the world trade. The export earnings for 1971-72 are estimated at Rs 8.30 crores.

RUBBER

Plantation of rubber is of comparatively recent origin. The output amounted to 10,000 tonnes in 1931. In 1971-72 it was 1,01,000 tonnes. The area planted with rubber at the end of 1970-71 was 2,03,000 hectares. The Rubber Board introduced a replanting subsidy scheme in 1957. It had granted subsidy of Rs 5.7 crores up to the end of December 1971 and an area of 28,961 hectares was replanted under the scheme up to December 1971.

Synthetic Rubber

A factory has been set up at Bareilly for producing synthetic rubber. Synthetic rubber production in 1971-72 was 33,000 tonnes as compared to 29,791 tonnes in 1970-71. The figures of rubber consumption for 1971-72 and 1970-71 were 96,500 and 87,227 tonnes respectively, of natural rubber and 37,000 tonnes and 33,160 tonnes of synthetic rubber.

VILLAGE AND SMALL INDUSTRIES

Although there has been considerable development of large-scale industries during the last twenty years, India remains predominantly a country of village and small industries. About two crore persons are engaged in cottage industries, of whom nearly 50 lakhs work in the handloom industries, *i.e.*, more than the total number of persons employed in the organised industries and mining put together.

The small-scale and village industries* have thus an important place in the economy of the country. These industries are labour-intensive rather than capital-intensive and provide full-time and part-time employment and supplementary income to crores of artisans, villagers and agriculturists who are generally without work for three to six months in a year.

Early history

Long before the Industrial Revolution in the West, India was known as the industrial workshop of the world. Indian textiles, calicoes, muslins and metalware were prized abroad. Under the British rule, however, these flourishing industries suffered a rapid decay for they had to make room for the mass-produced British goods.

It was after Independence that action was initiated to solve their age-old problems and difficulties, such as lack of credit facilities, outmoded methods and techniques, absence of organised marketing, unsatisfactory arrangements for the supply of raw materials, competition from large-scale units, etc. A number of agencies have been set up by the Union Government to help the small industries. These include the Khadi and Village Industries Commission, the All India Handicrafts Board, the All India Handloom Board, the Small Scale Industries Board, the Coir Board and the Central Silk Board. The Small Scale Industries Organisation implements the policies of the Government regarding these industries.

Credit facilities are made available to these industries through a number of institutions. Industrial estates and rural industrial projects have also been set up. Industrial co-operatives have been organised. State Directorates of Industries and other agencies are responsible for the development of these industries in the States. The assistance rendered by these agencies has been explained in the following pages.

Progress under Five Year plans

During the first two Plans, Rs 218 crores were spent by the Government for the development of the village and small industries. The expenditure during the Third Plan and the Annual Plans (1966-69) was Rs 240.76 crores and Rs 132.55 crores respectively. The Fourth Plan envisages an outlay of about Rs 293 crores in the public sector for the development of these industries.

The objectives of the programmes of development of village and small industries in the Fourth Plan are to improve progressively the production techniques of small industries so as to enable them to produce quality goods, to bring them to a viable level, to promote decentralisation and dispersal and to promote agro-based industries.

SMALL-SCALE INDUSTRIES

Rapid growth of modern small-scale industries constitutes a significant feature of development during the past decade. The number of small-scale units registered on a voluntary basis with the industries directorates of the States and Union Territories increased from about 36,000 at the beginning of 1962 to about 2,82,000 on 31 December 1971. In 1971 alone, more than 48,000 small industrial units came into existence. It has been estimated that small-scale units covered under the programme of Small Industries Development Organisation were employing 33 lakh workers in 1970. Their fixed investment during the same year was estimated at Rs 475 crores and their output was worth Rs 4,050 crores. Apart from the quantitative growth, there has been a significant improvement in the quality of their products. The small-scale sector has now entered into many sophisticated fields like electronics, plastics, ceramics, precision instruments, machine tools, spares/parts and complicated machinery. A variety of items are being produced to the standards and specifications prescribed by the defence services, the railways and several large-scale industries. A number of small-scale units supply parts and components to large-scale industries engaged in the manufacture of machine tools, bicycles, automobiles, coach-building and other railway equipment, electrical appliances and machinery. To encourage the small-scale sector, the Government have reserved 128 items for exclusive manufacture in this sector. There are at present more than 33 items where the entire production comes from small factories. Besides, there are 54 industries where bulk of production is contributed by this sector.

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* Small-scale industries include all industrial units with a capital investment in plant and machinery of not more than Rs 7.5 lakhs irrespective of the number of persons employed. Village industries are generally of traditional nature catering primarily to local markets.

The Directorate General of Supplies and Disposals purchases goods from this sector through the National Small Industries Corporation. The value of purchases increased from Rs 30 crores in 1968-69 to Rs 54.40 crores in 1971-72. At least 167 items have been reserved for exclusive purchase from small-scale industrial units.

Credit Facilities

To help the small entrepreneurs financially many schemes have been formulated. Small-scale industries receive financial assistance from the State Governments, State Financial Corporations and banking institutions. The State Bank of India and the 14 nationalised banks have, of late, taken greater interest in providing assistance on liberal terms. The advances made by commercial banks have increased from Rs 285.6 crores in June 1969 to Rs 507.2 crores in September 1971. The Credit Guarantee Scheme, as modified in February 1970, has made a substantial contribution to the volume of outstanding and actual advances. The scheme, which was being availed of by 140 credit institutions in 1968-69, is now being availed of by 164 credit institutions including all major commercial banks, State Financial Corporations and 72 co-operative societies. Loans are also granted by the nationalised banks to unemployed engineers without any security for setting up small-scale industries.

Allocation of Scarce Raw Materials

The small-scale sector is now given priority in the allocation of raw materials also. The value of "actual users' import licences" issued to this sector went up from Rs 36.72 crores in 1969-70 to Rs 117.95 crores in 1971-72. Allocation of indigenous scarce raw materials has also been progressively increasing.

Industrial Co-operatives

The Government have also been encouraging the growth of co-operatives in this sector. At the end of the Second Plan, there were 33,266 industrial co-operative societies. The number in 1969-70 had increased to about 51,500 societies with 38.8 lakh members and a working capital of Rs 347.6 crores. The National Federation of Industrial Co-operatives was registered in March 1966 to develop the export and wholesale marketing of products of industrial co-operatives.

Small Industries Development Organisation

A programme for giving technical assistance to small industries, which form the core of the developmental activities of the Central Small Industries Development Organisation, has been taken up directly by the Central Government. As a part of this industrial extension service, 16 small industries service institutes, 8 branch institutes and 55 extension/production/training centres have been set up. These offer technical advice and training facilities and economic information to small units.

National Small Industries Corporation

The National Small Industries Corporation, which was set up in February 1955, has helped in the establishment of 12,120 small-scale units with a potential of Rs 245 crores worth of finished products per year and capable of employing 2.5 lakh workers. Its Contract Division has established liaison with Government purchase departments and has evolved a workable arrangement for giving contracts to small units. The value of purchases from small industries by the Directorate General of Supplies and Disposals was Rs 54.40 crores in 1971-72. Over 20,486 small-scale units have registered for the supply of stores against Government orders. The Corporation has also introduced a scheme for hire-purchase, on liberal terms, of machinery and equipment needed by small units. The Prototype Production and Training Centres set up with US, West German and Japanese assistance at Rajkot, Okhla and Howrah have trained nearly 5,900 people from small-scale industries in modern machine tools and workshop methods. The centres manufacture prototypes and execute job orders.

Industrial Estates

A number of industrial estates have been set up all over the country to accommodate the small industrial units in more congenial atmosphere where various common facilities are provided for their smooth working. The number of sponsored industrial estates is 572. Up to March 1971, 10,317 industrial sheds had been constructed. The factories located in these sheds produce goods worth Rs 155 crores per annum and provide employment to about 1,05,000 workers.

Rural Industries Projects

A Centrally-sponsored scheme for rural industries projects was taken up in 1962-63. Its main object was to evolve techniques for establishing viable industrial units in rather inhospitable rural environments. Another object was to reduce the disparities in the levels of development between different regions. To start with, 45 areas were selected in the States and some Union Territories, each covering three to five development blocks with a population of 3 to 5 lakhs, for intensive development of small industries in rural areas. Four more areas were added in 1965. These 49 projects cover 34,075 villages.

Special emphasis has been laid on this scheme in the Fourth Plan so that a co-ordinated programme could be worked out to deal with the problem of development of backward areas. A special scheme of financial assistance by the State Bank of India has also been introduced. The number of units given financial assistance increased from 1,570 in 1964-65 to 16,290 in 1970-71. The gross value of production increased from Rs 89 lakhs to Rs 26.41 crores and employment increased from 32,000 to 1,23,000 during this period.

HANDLOOMS AND POWERLOOMS

The handloom industry ranks in importance next only to agriculture in employment potential. There are about 30 lakh handlooms, half of these in the co-operative sector. About 70 to 80 lakh persons depend on this industry for their livelihood.

Powerloom industry is of recent growth. The number of powerlooms in the country stood at 2.83 lakhs at the end of 1971. Of these, 1.71 lakh powerlooms are for cotton and the remainder for art-silk.

The targets of production for the decentralised sector (including handlooms and powerlooms) have been stepped up from 170 crore yards in the First Five Year Plan, 210 crore yards in the Second Plan, 350 crore yards in the Third Plan to 425 crore metres by the end of the Fourth Five Year Plan. The last figure is about 46 per cent of the total requirement of cloth in the country.

The industry has achieved a commanding position in the matter of exports. Its exports have increased from Rs 11.60 crores in 1967-68 to Rs 22.40 crores (provisional) in 1971-72.

HANDICRAFTS

The All India Handicrafts Board was set up in 1952 to improve the production and marketing of handicrafts. With its headquarters in New Delhi, the Board has five regional offices in Bombay, Calcutta, Delhi, Lucknow and Madras and four design centres in Bangalore, Bombay, Calcutta and New Delhi. It has also a few pilot centres for training, research, production and development of various crafts. It has also set up a Central Handicrafts Development Centre at Bangalore and a Central Crafts Museum at Delhi. About 250 emporia have been set up all over India by the Central and State Governments and the Governments of the Union Territories for effective marketing of handicrafts. The Board has also been helping craftsmen with improved tools and equipment, training schemes under master craftsmen and market extension centres.

The handicraft establishments produced goods worth Rs 380 crores in 1971-72. Export earnings from handicrafts (other than gems and jewellery) during April-November 1971 were valued at Rs 28.68 crores compared to Rs 26.18 crores for the corresponding period in 1970. The items that were most in demand abroad included woollen carpets and rugs, art metalware, hand-printed textiles, woodware, imitation jewellery, zari and embroidered goods.

According to the 1961 census, about 10.12 lakh persons were engaged in 3.72 lakh handicraft establishments.

COIR

The coir industry, essentially export oriented, is mainly organised on a cottage basis, though some factories employ wooden looms worked by manual labour. Efforts are being made to mechanise part of the coir matting manufacture and to diversify the industry's products. Of an estimated annual production of 1.38 lakh tonnes of coir yarn, more than 90 per cent is produced in Kerala. The production of coir fibre is now estimated at 1,60,000 tonnes, that of coir products at 25,000 tonnes and of coir rope 20,000 tonnes.

The Coir Board promotes coir products in India and abroad. The National Coir Training and Design Centre trains people and evolves new and improved designs for coir products.

The value of exports of coir yarn and products has steadily increased from Rs 8.7 crores in 1960-61 to Rs 11.10 crores in 1965-66 and to Rs 14.9 crores in 1971-72. This industry provides employment to nearly 8 lakh persons.

SILK

During 1971 the production of all types of raw silk was estimated to be about 29.75 lakh kg. Nearly two-thirds of this is produced in Mysore State, followed in order of importance by West Bengal, Assam, Jammu and Kashmir, Bihar and Madhya Pradesh. The value of exports of silk textiles and waste during 1970 and 1971 was Rs 14.15 crores and Rs 7.55 crores respectively. The number of persons to whom sericulture provided part/full-time employment was over 30 lakhs.

The Central Silk Board, established in 1949, looks after the development of silk and sericulture industry and co-ordinates research.

KHADI AND VILLAGE INDUSTRIES

Khadi and village industries normally depend on local raw materials and mainly cater to the requirements of the local population. The Khadi and Village Industries Commission is responsible for the development of these industries. It gives financial assistance to registered institutions, co-operative societies, State Khadi and Village Industries Boards undertaking programmes for the development of Khadi and other 22 village industries which come within its purview. More important of these are the processing of cereals and pulses, village oil, gur and khandsari, palm gur, non-edible oils and soap, bee-keeping, handmade paper, village pottery, carpentry and blacksmithy industries.

The production of these industries was worth Rs 111.45 crores in 1970-71 as against Rs 103.64 crores in the previous year, *i.e.*, an increase of about 8 per cent. The break up of this production was—Khadi Rs 25.85 crores, village oil Rs 25.93 crores, gur and khandsari Rs 18.35 crores, processing of cereals and pulses Rs 16.16 crores, village leather Rs 6.12 crores and palm gur Rs 5.99 crores.

During 1970-71 these industries provided employment to 19.20 lakh persons, 2.21 lakhs on a full-time basis and the remainder on a part-time basis. Of the total employment, Khadi accounted for a little less than a half. Next in order of importance was the palm gur industry which provided work to 3.03 lakh persons.

The Commission disbursed Rs 19.24 crores to the various agencies implementing its programmes in 1970-71 as against Rs 21.44 crores in 1969-70. Of this, Rs 11.30 crores were for Khadi and the balance for other village industries.

18 COMMERCE

EXTERNAL TRADE

Until 1947 India had a pattern of trade which was traditionally that of a colonial and agricultural country. Bulk of the country's foreign trade was confined to Britain and other Commonwealth countries. India's exports consisted of a few agriculture-based commodities like the cotton textiles, jute and jute goods, tea, spices and hides and skins and mining products like mica and manganese ore. The imports were also restricted and consisted mainly of manufactured articles. There was a favourable balance of trade which concealed a low level of industrial production and development.

With the tremendous growth of industries since Independence, India's foreign trade has undergone a complete metamorphosis and is no longer confined to a few countries. India, now, has trading links with practically all the countries of the world. The items on the country's export list today number about three thousand as against about fifty at the time of Independence.

There has been a great increase in imports on account of the development needs of the economy. The composition of imports has, naturally, undergone a great change. Bulk of the imports now consist of sophisticated machines, scarce raw materials for industry, lubricants and oils and fertilizers essential for the country's industrial and agricultural development. The country has been having an adverse balance of trade mainly on account of heavy imports necessary for its development.

VOLUME OF FOREIGN TRADE

The total value of India's foreign trade (imports plus exports including re-exports) during 1970-71 and 1971-72 amounted to Rs 3,169.36 crores and Rs 3,418.63 crores respectively. The value of imports and exports, the total value of foreign trade and the balance of trade for selected years since 1950-51 are given in Table 18.1.

The adverse balance of trade, which had been widening since the beginning of the Second Plan in 1956 owing to an increase in imports needed to meet the requirements of development and maintenance and a relatively slower growth of exports, showed a generally upward tendency till 1966-67. This trend was reversed in 1967-68 and in the subsequent years up to 1970-71, there was a sharp decline in the country's trade deficit. There was a sharp increase in imports during 1971-72 resulting in a fairly heavy deficit in the balance of trade in that year.

BALANCE OF PAYMENTS

Tables 18.2 and 18.3 show India's balance of payments position on current and capital accounts respectively in 1969-70 and 1970-71.

PATTERN OF TRADE

EXPORTS

India's exports, which had been more or less stagnant during the decade 1951–60, averaging a little over Rs 600 crores per annum, started increasing during the Third Plan period. At the end of the Third Plan in 1965-66, the exports stood at about Rs 806 crores. There has been a steady increase in exports since then. In 1971-72

TABLE 18.1
FOREIGN TRADE OF INDIA

(Rs crores)

Year	Imports	Exports (including re-exports)	Total value of foreign trade	Balance of trade
1950–51	650.21	600.64	1,250.85	— 49.57
1955–56	678.84	596.32	1,275.16	— 82.52
1960–61	1,139.69	660.22	1,799.91	—479.47
1965–66	1,408.53	805.64	2,214.17	—602.89
1966–67	2,078.36	1,156.56	3,234.92	—921.80
1967–68	2,007.61	1,198.69	3,206.30	—808.92
1968–69	1,908.63	1,357.87	3,266.50	—550.76
1969–70	1,582.67	1,413.28	2,995.95	—169.39
1970–71	1,634.20	1,535.16	3,169.36	—99.04
1971–72	1,812.02	1,606.61	3,418.63	—205.41

Source: Department of Commercial Intelligence and Statistics, Calcutta.

Note I: The export figures from November 1970 onwards are based on the original copy of the shipping bill after an adjustment made for short and shut out shipment returns received during the period. As such, these are not comparable to the export figures for a period prior to October 1970 which were based on the finally passed shipping bills.

Note II: (1) The data cover trade by sea, air and land. Figures of trade with Sikkim and Bhutan are not included. Land-borne trade with Nepal and export of items through parcel post as well as the trade of Goa, Daman and Diu was included from 1962–63 onwards, and the trade of Andaman and Nicobar Islands from April 1963. (2) Transhipment trade and ships stores are excluded. From 1957, direct transit trade (trade of adjacent countries passing in transit through Indian ports but through bills of lading) is excluded, but indirect transit trade (goods previously imported but kept in ware-houses and afterwards re-exported) is included first under imports and thereafter under re-exports. (3) Besides merchandise trade, trade in treasure—gold and silver—has been included. From 1957 silver is covered under merchandise. (4) The import figures exclude certain consignments of foodgrains and Government stores awaiting adjustment. (5) While exports are valued on f.o.b./f.o.r. basis inclusive of export duty and other charges payable at the time of export, imports are valued on c.i.f. basis and are exclusive of import duty. (6) The above figures differ from those published earlier because of corrections relating to (i) short shipments and shut out shipments in the case of exports, and (ii) final adjustments in transactions of Government imports. (7) As a result of the change in the method of compiling export statistics introduced in November 1970, the export figure for 1971–72 is not strictly comparable with the corresponding figure for 1970–71.

the exports totalled Rs 1,606.61 crores.

Exports have not only increased, they have also witnessed an increasing diversification in recent years. The increase has been well spread over a number of commodites. Among the items, exports of cotton manufactures had gone up from Rs 52.37 crores in 1961-62 to Rs 86.63 crores in 1969-70 and Rs 97.47 crores in 1970-71, iron ore and concentrates from Rs 17.41 crores to Rs 117.28 crores in 1970-71, unmanufactured tobacco from Rs 14.05 crores to Rs 32.71 crores in 1969-70 and Rs 31.40 crores in 1970-71 and iron and steel from Rs 9.68 crores to Rs 90.62 crores in 1970-71. However, exports of jute manufactures which reached an all-time high of Rs 249 crores during 1966-67 have been declining since. The same is true of tea which, after reaching an all-time high of Rs 180 crores in 1967-68, has started declining since 1968-69. Table 18.4 gives the principal exports of India for 1950-51, and 1963-64 to 1970-71.

Non-essential vegetable oils and sugar, which recorded substantial exports up to 1963-64, started declining thereafter because of shortage within the country but the export of sugar went up because of better domestic production in 1969-70 and 1970-71. Another characteristic is the substantial increase achieved in the exports of non-traditional items, such as iron ore, iron and steel, engineering goods, etc.

Exports in 1971-72

During April 1971-January 1972, there was an appreciable increase in the exports of jute manufactures (Rs 57.3 crores), East India tanned hides and skins (Rs 18.2 crores), cashew kernels (Rs 10 crores), handicrafts (Rs 9.1 crores), sugar (Rs 6.6 crores), fish (Rs 6.7 crores) and cotton apparel (Rs 4 crores). Other commodities which showed increase were tea, fabrics of artificial silk and synthetic fibre and spunglass, unmanufactured tobacco, raw cotton, handloom cotton piecegoods and lac. There was moderate increase in the case of footwear made of canvas and leather and rubber manufactures.

This increase was, however, offset by a sharp decline in the exports of iron and steel (Rs 37 crores), iron ore (Rs 14.3 crores), oil cakes (Rs 12.4 crores), cotton manufactures excluding cotton apparel (Rs 10.5 crores), engineering goods (Rs 5.6 crores), chrome leather (tanned) (Rs 5.6 crores) and mineral fuels and lubricants (Rs 4.6 crores). Other items, the exports of which declined, were coffee, spices, onions, raw hides and skins, manganese ore, transport equipment, machinery other than electric, paper and paper board, meat and meat preparations and raw jute.

A brief product by product review covering some of the important items is given below.

Jute Manufactures

During the past few years, exports of Indian jute goods have been losing ground in the world markets primarily due to keen competition from synthetic substitutes and supplies from Bangladesh. During 1971-72 (April-January), however, exports of jute goods increased to Rs 214.12 crores from Rs 156.85 crores during the corresponding period in the previous year. This was on account of the disruption of supplies from Bangladesh and the possibility of another longdrawn longshoremen's strike on the Pacific and Atlantic coasts of the USA by early September 1971.

A Jute Corporation was set up in 1971 to stabilise prices of raw jute at remunerative levels and to market jute goods abroad. New uses for jute goods are being found.

Tea

Exports of tea during 1971-72 (April-January) increased to 175.9 million kilograms valued at Rs 133.82 crores from 175.4 million kilograms valued at Rs 131.28 crores during the corresponding period in the previous year. The f.o.b. unit price realised increased by about 20 paise per kg. The Tea Trading Corporation was set up in 1971 to promote exports of packaged tea.

Cotton Textiles

Exports of cotton piecegoods at Rs 54.55 crores during 1971-72 (April-January) reveal a shortfall of Rs 2.64 crores as compared with the corresponding period of the preceding year. The loss in earnings would have been larger but for the higher unit prices realised.

Exports of cotton yarn at Rs 11.1 crores were lower by Rs 7.84 crores compared to the corresponding period of the preceding year. This was despite higher unit value realisation during the period under review. Domestic shortage and foreign exchange problems facing the country's main buyers like Burma and Ceylon hampered the exports of cotton yarn. However, exports of cotton apparel and handloom cotton

TABLE 18.2

BALANCE OF PAYMENTS: CURRENT ACCOUNT

(*Rs crores*)

Item	1969–70 (Preliminary) Credits	1969–70 (Preliminary) Debits	1969–70 (Preliminary) Net	1970–71 (Preliminary) Credits	1970–71 (Preliminary) Debits	1970–71 (Preliminary) Net
1. Merchandise[1]						
(i) Private	1,403.0	628.6	+774.4	1,401.7	646.2	+ 755.5
(ii) Government	0.9	953.7	—952.8	1.0	1,074.2	—1,073.2
2. Non-monetary gold movement	—	—	—	13.1	—	+ 13.1
3. Foreign travel[2]	31.7	15.2	+ 16.5	27.9	17.8	+ 10.1
4. Transportation[3]	100.4	72.0	+ 28.4	106.5	78.4	+ 28.1
5. Insurance[3]	12.9	13.4	— 0.5	11.7	12.2	— 0.5
6. Investment income[4]	33.8	251.6	—217.8	48.5	274.2	— 225.7
7. Government not included elsewhere[5]	29.5	23.5	+ 6.0	30.1	23.0	+ 7.1
8. Miscellaneous[6]	54.3	69.4	— 15.1	55.4	77.6	— 22.2
9. Transfer payments						
(i) Official[7]	35.6	16.8	+ 18.8	59.5	6.4	+ 53.1
(ii) Private[8]	139.3	14.2	+125.1	136.4	13.2	+ 123.2
10. Total current transactions	1,841.4	2,058.4	—217.0	1,891.8	2,223.2	— 331.4
11. Errors and omissions	—	—	—14.4	—	—	— 78.7

Note: The import and export figures in this and the following sections are based on exchange control data and are not comparable with those published by the Directorate-General of Commercial Intelligence and Statistics. For factors causing discrepancies, see "India 1966", p. 326.

1. Exports f.o.b.; imports c.i.f. The data on government imports exclude freight on PL-480 imports initially borne by India but subsequently refunded by US authorities. 2. Data for receipts are incomplete. 3. Receipts cover estimated amounts for reimbursements of freight and insurance paid in advance by exporters and disbursements of foreign ships in Indian ports, etc., and payments include operating expenses abroad of Indian steamship companies and some freight and insurance payments. 4. Receipts include interest on investments of the Reserve Bank of India. 5. The payment figure represents disbursements of the Government, for example, for the upkeep of its organisations abroad. 6. Covers receipts and payments mainly for services. 7. Represents contra-entries for imports financed by aid received under the Colombo Plan and Indo-American Technical Co-operation Agreement, receipts of cash grants mainly from the Ford Foundation and receipts and payments of pensions on government account and contributions to international organisations. 8. Comprises unilateral transfers like maintenance remittances, receipts of missionaries, remittances of savings, migrants transfers, etc., and receipts and payments of pensions, retirement benefits, etc., on private account.

TABLE 18.3

BALANCE OF PAYMENTS: CAPITAL ACCOUNT

(Rs crores)

Item	1969–70			1970–71		
	Credits	Debits	Net	Credits	Debits	Net
1. Private (a)	34.2	68.4	— 34.2	40.0	70.4	— 30.4
(i) Long-term	30.8	66.3	— 35.5	38.8	68.2	— 29.4
(ii) Short-term	3.4	2.1	+ 1.3	1.2	2.2	— 1.0
2. Banking (b)	51.8	37.2	+ 14.6	43.7	51.4	— 7.7
3. Official (c)	1,069.5	818.5	+251.0	1,367.6	919.4	+448.2
(i) Loans (d)	659.0	128.2	+530.8	658.9	157.2	+501.7
(ii) Amortisation (e)	2.3	180.8	—178.5	2.3	190.5	—188.2
(iii) Miscellaneous (f)	329.2	192.6	+136.6	386.8	340.8	+ 46.0
(iv) Reserves (g)	79.0	316.9	—237.9	319.6	230.9	+ 88.7
Total capital and monetary gold	1,155.5	924.1	+231.4	1,451.3	1,041.2	+410.1

Notes: (i) The data are preliminary. (ii) The rupee equivalent of all foreign currency transactions up to the end of May 1966 has been arrived at by applying the pre-devaluation exchange rates and of those during the subsequent period by using the current exchange rates.

(a) Non-banking includes drawings and repayments on account of IBRD loans and other foreign government loans to private sector in India. (b) Excluding RBI. (c) Including RBI. (d) Credits represent utilisation of various foreign loans and credits obtained by the official sector from the IBRD, IDA and foreign governments, as well as rupee loans out of PL 480 and PL 665 counterpart funds, and drawings from the IMF. Debit entries relate to the repurchase of rupees from the IMF. (e) Entries relate mainly to repayments of loans from the IBRD and from foreign governments, capital withdrawals and disbursements relating to the Pension Annuity arrangements under the Indo-UK Financial Agreement of July 1948, capital repayments by the UK of excess pension fund under the Pension Resettlement Arrangements of March 1965, repayment of partition debt by Burma and repayments of the loan extended to Burma in 1957. (f) Covers capital receipts and payments on official account other than loans and amortisation transactions. (g) Represents changes in the foreign exchange assets of the RBI and the Government and the gold holdings of the former.

piecegoods at Rs 10.77 crores and Rs 8.15 crores respectively were higher by Rs 3.96 crores and Rs 1.77 crores respectively compared to the corresponding period of the preceding year.

India's exports of cotton textiles are subject to quantitative restrictions imposed by a number of industrial countries. This naturally restricts the scope for increase in exports. However, India has been able to secure a larger quota from the EEC countries and it is hoped that offtake by these countries will improve. In January 1972, UK imposed an import duty of 15 per cent on cotton fabrics imported from the Commonwealth countries. The severity of the blow was somewhat softened by the maintenance of the system of bilateral quotas. Besides seeking directional change in the cotton textile exports, an effort is being made to diversify the pattern of exports so as to include more of blended fabrics and ready-made garments. The Government has also decided in principle to take over exports of cotton piecegoods.

Unmanufactured Tobacco

The declining trend in the exports of unmanufactured tobacco was arrested during the period under review. Exports of tobacco improved by Rs 9.97 crores to Rs 55.42 crores. There was an increase in quantity exported as well as in the unit value realised. A Tobacco Board is being set up to deal with the problems of tobacco production, exports, etc.

Fruits, Vegetables and Pulses

Exports of fruits, vegetables and pulses during April-January 1971-72 valued at Rs 66.37 crores were higher by Rs 6.43 crores compared to the preceding corresponding period The main item under this group is cashew kernels, exports of which amounted to Rs 55.42 crores as compared to Rs 45.38 crores earlier. This increase was recorded despite a fall in the unit value. Competition from the East African countries and Brazil is an inhibiting factor. Because of a shortfall in domestic production, exports of onions and pulses could not be maintained at the earlier levels. The exports fell from Rs 5.50 crores and Rs 3.65 crores during April-January 1970-71 to Rs 1.87 crores and Rs 3.21 crores respectively during the period under review.

Engineering Goods

Exports of engineering goods declined to Rs 91.34 crores during the period under review as against Rs 96.97 crores during the corresponding preceding period. This was largely due to shortage of some critical inputs like iron and steel and the uncertainty on account of international monetary crisis from mid-August 1971 to mid-December 1971.

The range of engineering goods exported has shown a fair measure of diversification, specialisation and sophistication. Indian engineering products have found their way to the developed countries also. Wagons and coaches, transmission line towers, chemical plants, etc., manufactured in India are becoming internationally competitive in price and quality.

Iron Ore

Exports of iron ore declined both in quantity and value. These exports amounted to 15.6 million tonnes valued at Rs 82.92 crores during April-January 1971-72 against 17.4 million tonnes valued at Rs 97.87 crores during the corresponding preceding period, the unit price declining from Rs 56.25 to Rs 53.15 per tonne. The decline was due to several factors which included transport bottlenecks in the eastern sector, shortfall in production, labour trouble at Madras port and recession in the Japanese steel industry. India is now trying to push up her exports of iron ore to the East European countries.

TABLE 18.4

EXPORTS OF PRINCIPAL COMMODITIES (BY SEA, AIR AND LAND)

(*Rs lakhs*)

Commodity	1950-51	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Jute manufactures (excluding twist and yarn) ..	11,277	15,214	16,723	18,162	24,900	23,353	21,694	20,496	18,917
Tea	7,987	12,338	12,465	11,484	15,841	18,022	15,651	12,450	14,825
Cotton manufactures (excluding twist and yarn)	11,944	5,036	6,416	6,329	7,560	7,944	8,797	8,663	9,747
Textile fabrics (other than cotton and jute) ..	461	1,808	868	742	623	614	954	1,092	1,213
Textile articles (other than cotton and jute mfrs., woollen carpets, carpeting floor rugs and mattings)	837	1,121	542	458	668	576	631	707	
Textile yarn and thread	2,564	1,668	1,440	1,507	2,036	1,612	2,430	4,092	3,448
Ores of non-ferrous base metals and concentrates		973	1,451	1,154	1,624	1,299	1,622	1,471	1,749
Leather	2,577	2,620	2,716	2,821	6,185	5,322	7,199	8,053	7,159
Raw cotton (excluding linters and waste) ..	494	2,111	1,058	1,039	1,193	1,475	1,574	1,469	1,395
Fresh fruits and nuts (excluding oilnuts) ..	1,095	2,376	3,105	2,924	4,819	4,506	6,477	5,999	5,441
Crude vegetable materials, inedible* ..	1,361	1,599	1,705	1,678	2,287	1,914	2,166	2,576	3,402
Raw wool	787	652	765	643	674	565	487	413	411
Sugar (including molasses)	17	2,710	1,821	1,119	1,814	1,644	1,046	884	2,930
Iron ore and concentrates	22	3,640	3,739	4,237	7,019	7,478	8,840	9,462	11,728
Tobacco, unmanufactured	1,411	2,109	2,438	1,957	2,152	3,485	3,316	3,271	3,140
Vegetable oils (non-essential)	2,526	1,993	705	409	283	396	1,171	495	703
Crude fertilizers and minerals (excluding coal, petroleum and precious stones)	negl.	1,205	1,303	1,461	1,878	1,968	1,858	2,188	2,230
Woollen carpets, carpeting floor rugs and mattings	556	526	537	448	801	945	1,065	1,099	996
Iron and steel	287	361	1,033	1,238	2,469	5,483	7,893	8,679	9,062
Coffee	135	831	1,342	1,294	1,584	1,818	1,796	1,962	2,511
Hides and skins, undressed	956	959	905	945	1,609	739	504	831	377
Petroleum products	3	741	789	646	1,030	732	943	742	856
Coal, coke and briquettes	336	235	436	286	236	183	267	205	401
TOTAL (including other items)	60,064	79,324	81,630	80,564	1,15,656	1,19,869	1,35,787	1,41,328	1,53,516

* N.E.S.: Nowhere else stated in trade classification list.

Note: The Export figures from November 1970 onwards are based on the original copy of the shipping bill after an adjustment made for short and shut out shipment returns received during the period. As such, these are not comparable to the export figures for a period prior to October 1970 which were based on the finally passed shipping bills.

Manganese Ore and Mica

Exports of both manganese ore and mica declined in quantity and value, but the unit values of both registered an increase during the period under review. The unit values of manganese ore increased from Rs 854.3 to Rs 995.6 per tonne and that of mica from Rs 6.1 to Rs 6.9 per kg.

Iron and Steel

Exports of iron and steel during April-January 1971-72 were valued at Rs 31.30 crores recording a steep decline of Rs 36.99 crores over the same period of the preceding year. Efforts are being made to step up production to meet both home requirements and export demand.

Leather and Leather Manufactures

Exports of leather and leather manufactures (excluding footwear) at Rs 72.75 crores during the period under review recorded an increase of Rs 13.89 crores over the corresponding preceding period. Whereas exports of East India tanned hides and skins and finished leather registered an increase, the exports of tanned chrome and leather manufactures showed decline.

Fish

India's exports of fish at Rs 32.79 crores recorded an increase of Rs 6.56 crores over the corresponding period of the previous year. But the quantity exported registered a decline showing thereby that a higher unit value was realised. There is a considerable scope for increasing the exports of marine products.

Coffee

Exports of coffee during 1971-72 (April-January) at Rs 19.48 crores registered a decline of Rs 2.5 crores over the corresponding period of the previous year. This decline was on account of a fall in the unit value realised though there was an increase in quantity exported.

India's exports of coffee are regulated in terms of International Coffee Agreement to which India is a signatory. This restricts the scope for increasing our exports to the traditional markets. The Coffee Board is making efforts to popularise the use of coffee in non-traditional markets.

Oilcakes

Exports of oilcakes at Rs 34.57 crores declined by Rs 12.43 crores. There was also a decline in quantity exported by nearly a lakh tonnes. The unit value realised during the period under review declined to Rs 537.30 from Rs 631.89 per tonne. Some of the factors responsible for this decline were higher freight rates, competition from soyabean meal and reduced quantity available for exports.

Handicrafts

Exports of pearls, precious and semi-precious stones, unworked and worked, improved from Rs 34.68 crores in 1970-71 (April-January) to Rs 42.23 crores during 1971-72 (April-January). This increase was made possible because of favourable market conditions abroad, particularly in the USA. Moderate increases were recorded in the exports of metal artware, hand-printed textiles, zari goods and woodware.

Petroleum Products

Exports of petroleum products registered a decline from Rs 7.82 crores to Rs 5.84 crores during the period under review. The Government now plans to import petroleum products, as these products, when refined at home from imported crude, cost more and the Government is not agreeable to grant increase in the price of imported crude demanded by foreign countries. It appears that it may not be easy to retrieve the ground lost in this item.

IMPORTS

Table 18.5 gives India's principal imports, with value, for the years 1950-51 and 1963-64 to 1970-71.

The rising trend in imports was reversed in 1967-68 and imports thereafter continued to decline until 1970-71. The decline was mainly

TABLE 18.5

IMPORTS OF PRINCIPAL COMMODITIES (BY SEA, AIR AND LAND)

(*Rs lakhs*)

Commodity	1950-51	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Iron and steel	1,431	9,315	10,496	9,800	9,790	10,629	8,620	8,151	14,709
Machinery other than electric	6,676	28,212	31,305	33,244	40,800	35,656	36,582	28,035	25,693
Petroleum products	5,427	5,822	4,133	3,335	2,703	1,510	3,718	4,123	2,999
Transport equipment	3,493	7,106	7,374	7,055	6,221	8,093	6,638	5,122	5,826
Electric machinery and appliances	2,191	8,480	9,122	8,780	10,589	8,564	8,172	6,432	6,930
Raw cotton	10,007	4,884	5,809	4,621	5,647	8,301	9,018	8,278	9,883
Wheat, unmilled	9,921	13,484	24,192	26,473	42,304	37,847	25,949	18,433	17,337
Petroleum, crude and partly refined ..	NA	4,617	2,723	3,487	3,609	5,973	9.560	9,633	10,590
Chemical elements and compounds ..	917	3,211	3,404	3,586	5,405	7,737	8,287	6,742	6,799
Manufactures of metals	1,394	1,582	1,699	1,817	1,726	1,418	1,353	734	925
Textile yarn and thread	1,503	1,070	913	592	704	404	419	243	441
Copper	849	2,604	2,441	3,337	3,911	3,554	3,922	4,740	6,020
Rice	5,349	3,750	4,017	4,190	8,164	5,476	5,747	5,825	2,982
Medicinal and pharmaceutical products ..	997	864	821	873	1,741	1,752	1,750	1,830	2,428
Fresh fruits and nuts	951	1,543	1,929	1,886	2,408	3,183	3,760	3,422	3,582
Raw wool and hair	562	1,572	964	512	1,178	1,182	1,123	1,724	1,607
Paper and paper-board	1,014	1,225	1,288	1,323	2,123	1,736	1,813	2,358	2,481
Oilseeds, nuts and kernels	229	916	704	881	472	522	351	344	636
Coal-tar, dyestuffs and natural indigo ..	1,198	526	519	375	444	397	439	278	416
Aluminium	238	646	724	629	1,521	1,768	450	151	335
Milk and cream, dried or condensed ..	356	854	674	664	2,185	1,330	1,371	760	704
Misc. chemicals and products	NA	952	501	688	1,637	1,512	1,796	1,413	1,860
Zinc	656	986	1,115	1,284	1,086	1,430	1,989	825	2,197
Raw jute and waste	7	206	733	916	2,057	177	931	108	14
Crude minerals (excluding coal, petroleum, fertilizer materials and precious stones) ..	NA	1,016	1,180	1,157	1,980	4,533	2,410	1,967	2,301
Vegetable oils	334	420	480	711	1,127	1,655	968	1,723	2,308
TOTAL (including other items)	65,021	1,22,285	1,34,903	1,40,853	2,07,836	2,00,761	1,90,863	1,58,267	1,63,420

in the imports of foodgrains because of better domestic crops. In some other imports, decline was due to indigenous substitution, shortage of foreign exchange and slackness in home demand. There was, however, a sharp increase in imports during 1971-72 necessitated by shortfalls in the domestic production of iron and steel, raw cotton and fertilizers.

Imports During 1971-72

Imports during 1971-72 (April-December) increased to Rs 1,364.86 crores from Rs 1,183.17 crores during the preceding corresponding period, an increase of Rs 181.6 crores or 15.4 per cent. The increase in imports was due mainly to increased imports of cotton, fertilizers, petroleum and petroleum products, iron and steel, chemical elements and compounds including medicinal and pharmaceutical products, machinery and transport equipment.

Among the major imports which registered a decline during the period under review were cereals and cereal preparations by Rs 64.89 crores, pulp and waste paper by Rs 2.74 crores, vegetable oils and fats by Rs 1.77 crores and aluminium by Rs 6.83 crores.

DIRECTION OF TRADE

Imports

The principal countries from which India imported and the value of imports from each of these countries for the years 1950-51 and 1963-64 to 1970-71 are shown in Table 18.6.

It will be seen from this Table that over the years, the USA has emerged as the largest supplier, mainly because of imports of foodgrains and other items under aid and grants. In spite of decline in imports of foodgrains by India, the USA continues to be the largest supplier followed at a distance by the UK. The UK, which was relegated to the third position in 1968-69, once again emerged as the second best supplier during 1970-71, followed by Canada, West Germany and the USSR. There has been a striking increase in imports from Canada, West Germany, the USSR, Sudan and Egypt.

Exports

The UK and the USA continued to be India's principal buyers until 1968-69. Since 1969-70, however, the USSR and Japan have also become the country's principal buyers. During 1968-69 the share of the UK and the USA in India's exports was 14.8 and 17.2 per cent respectively. But in 1970-71 these countries accounted for only 11.1 and 13.5 per cent of exports respectively. In 1970-71 the USSR emerged as the largest buyer with a share of 13.7 per cent in the total exports followed closely by the USA (13.5 per cent) and Japan (13.3 per cent). In 1970-71 the UK's rank changed from second to fourth. Other important buyers were West Germany, Canada, Czechoslovakia, Ceylon, Egypt and Sudan.

The principal countries to which India exported and the value of exports to each of these countries for the years 1950-51 and 1963-64 to 1970-71 are given in Table 18.7. A study of these figures reveals an increasing diversification in the direction of export trade. India's exports to the East European countries rose from Rs 63 crores in 1961-62 to Rs 362 crores in 1970-71.

TRADE POLICY

It is Government's policy (in terms of the Export Policy Resolution laid before Parliament in July 1970) to promote necessary investments to increase production capacity for export so that the surpluses required for the long-term growth of exports are guaranteed in increasing quantities.

Under the Industrial Licensing Policy, provision has been made for expansion of industrial output especially for exports. A Trade Development Authority has also been established to render package assistance to individual exporters in engineering and chemical industries, particularly in the small-scale sector.

Public sector trading agencies are being geared up for canalising increasing sectors of import and export trade to take advantage of bulk purchases and to assure industry of the raw materials required for sustaining production, at the same time bringing down the level of inventories required in the country, to push the exports of new and difficult items to new markets and to organise exports on a more rational basis. Sales organisations and techniques are also being re-oriented. In the public sector, the need for growing specialisation has been recognised by setting up special corporations to handle the specialised trade in items, such as cotton, cashew, complete projects and equipment.

The import policy of the Government is so designed as to further develop foreign trade of the country on a rational basis. It is calculated to bring in an increasing amount of the import trade under the ambit of state trading agencies, give further fillip to export production, streamline procedures, encourage the setting up of small-scale industries and assist professional and technical people in their vocations by giving them necessary import facilities for their professional and technical work.

EXPORT POLICY AND PROMOTION

India has been striving consistently for the expansion and diversification of her exports. A series of measures have been put into operation which cover finance for export, assistance and incentives, transport facilities, training, market research, rationalisation of institutional arrangements and technical services including some with the help of UN agencies and friendly countries. Other facilities provided include release of foreign exchange for specified purposes, import replenishment, priority in allotment of scarce raw materials and concessional prices for some raw materials, railway freight concessions, drawbacks of import and excise duties and other general and specific relief in line with international trading practices.

Export trade has been recognised as a priority sector. The Government and the Reserve Bank have taken measures from time to time to facilitate credit for exporters at a reasonable interest. Exporters can obtain both pre-shipment and post-shipment advances from commercial banks at a concessional rate. Refinance is also available from the Reserve Bank for such advances. The Industrial Development Bank of India makes direct advances to exporters of capital goods and machinery in association with commercial banks.

To help exporters meet the competition in foreign markets, develop marketing competence and neutralise the disadvantages inherent in the present stage of the development of the economy, a scheme has been put in force under which cash assistance is offered on the exports of selected non-traditional industrial products. Enhanced compensatory support is available in selected cases with substantial export promise.

Important indigenous raw materials required for export production in the engineering, chemical and other industries are allotted on a

TABLE 18.6

IMPORTS FROM PRINCIPAL COUNTRIES (BY SEA, AIR AND LAND)

(*Rs lakhs*)

Country	1950-51	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
USA	11,916	44,997	51,048	53,483	78,291	77,664	57,239	46,722	44,618
UK	13,531	17,146	16,365	15,009	16,547	16,265	12,750	10,259	12,603
Germany (Federal Republic)	—	9,046	10,934	13,714	6,286	4,393	12,008	8,444	10,688
Iran	3,700	4,799	2,902	3,408	3,049	3,289	8,637	8,343	9,164
Japan	1,011	6,587	7,819	7,933	10,740	10,843	11,539	6,741	8,330
Italy	1,626	1,742	2,262	1,986	4,151	3,427	4,915	3,985	2,886
France	1,107	1,442	1,786	1,805	3,509	3,442	3,650	2,373	2,129
USSR	23	6,846	7,878	8,317	11,380	11,122	19,170	17,133	10,468
Belgium	922	798	879	1,151	2,428	1,780	1,135	814	1,147
Switzerland	761	1,207	1,186	1,451	1,806	1,339	1,512	1,108	1,150
Australia	3,345	1,792	2,465	2,418	5,900	6,496	2,573	3,131	3,658
Federation of Malaya*	81	1,209	1,042	1,277	1,240	930	772	827	576
Saudi Arabia	87	2,118	1,346	866	605	2,283	1,276	1,749	2,417
Canada	2,190	2,397	2,652	3,152	9,219	9,828	9,861	7,487	11,731
Czechoslovakia	277	1,733	1,983	2,115	3,350	2,734	3,527	2,302	2,020
Pakistan	464	935	1,658	513	136	211	1	—	—
Burma	1,880	845	1,030	972	4,023	924	1,651	2,015	964
Netherlands	726	1,074	1,383	1,977	3,459	2,567	1,768	1,581	1,906
Singapore	1,608	531	384	—	1,503	333	923	154	117
Sweden	529	1,181	1,123	1,063	1,415	1,840	1,677	1,048	972
Egypt	3,287	1,525	1,735	1,996	2,030	2,690	4,141	2,169	3,984
Kenya	1,852	341	743	456	589	764	671	453	967
Sudan	749	852	900	574	1,737	1,152	2,150	2,722	2,094
TOTAL (including other countries) ..	65,021	1,22,285	1,34,903	1,40,853	2,07,836	2,00,761	1,90,863	1,58,267	1,63,420

* Figures for 1965-66 relate to Malaysia including Singapore.

TABLE 18.7

EXPORTS TO PRINCIPAL COUNTRIES

(*Rs lakhs*)

Country	1950-51	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
UK	13,982	16,297	16,639	14,478	20,239	22,905	20,151	16,507	17,044
USA	11,588	12,953	14,642	14,698	21,999	20,743	23,436	23,796	20,734
USSR	138	5,195	7,789	9,289	12,340	12,179	14,831	17,637	20,985
Japan	1,027	5,878	6,082	5,705	10,744	13,592	15,833	17,936	20,349
Australia	2,971	1,759	1,994	1,749	2,612	2,798	2,550	2,445	2,446
Ceylon	1,968	1,915	1,438	1,279	1,850	1,493	2,336	2,565	3,182
Germany (Federal Republic)	—	1,976	1,757	1,797	2,603	2,228	2,650	2,989	3,231
Canada	1,379	2,117	1,744	2,027	3,097	2,977	2,970	2,634	2,796
Burma	2,446	631	629	357	374	384	969	2,085	1,403
Egypt	587	1,254	1,424	2,705	2,500	2,150	2,182	3,464	5,637
France	901	1,083	1,187	1,103	1,836	1,554	2,005	2,172	1,798
Argentina	1,065	1,006	743	415	202	57	65	70	334
Sudan	418	785	634	817	1,457	2,075	1,847	1,985	3,827
Malaya*	550	1,285	704	1,259	1,048	691	709	826	1,174
Singapore	3,068	1,735	787	—	935	878	1,344	1,584	1,763
Netherlands	1,016	1,043	909	791	1,179	1,298	1,537	1,118	1,398
Czechoslovakia	1,008	1,616	1,592	1,593	2,857	2,917	3,177	3,009	2,946
Kenya	641	503	529	486	731	604	812	775	787
Italy	1,500	1,125	992	939	1,548	1,782	1,806	1,294	1,401
Nigeria	463	378	512	400	459	375	308	281	862
Cuba	negl.	401	167	29	negl.	negl.	—	1	16
New Zealand	367	726	538	657	859	627	685	584	597
Pakistan	1,356	717	970	488	1	1	1	negl.	36
Indonesia	42	240	180	82	107	586	555	404	410
TOTAL (including other countries)	60,064	79,324	81,630	80,564	1,15,656	1,19,869	1,35,787	1,41,328	1,53,516

* Figures for 1965-66 relate to Malaysia including Singapore.

Note: The export figures from November 1970 onwards are based on the original copy of the shipping bill after an adjustment made for short and shut out shipment returns received during the period. As such, these are not comparable to the export figures for a period prior to October 1970 which were based on the finally passed shipping bills.

priority basis. Prime iron and steel, the main raw material for engineering exports, is made available at international prices under an inter-industry arrangement. Similarly, indigenous plastic raw materials are made available at international prices to exporters of plastic goods.

The Government recognises and approves several specialised organisations for export promotion. The more important of these are the Federation of Indian Export Organisations, Export Promotion Councils, Commodity Boards, Indian Council of Arbitration, Export Inspection Council, the Indian Institute of Packaging and the Indian Institute of Foreign Trade.

A revised scheme for recognition of export houses specialising in export trade was put into effect from 1 July 1968. Companies registered under the Companies Act and co-operative societies and federations with a sound financial base and experience in export trade and with a minimum annual export performance of Rs 25 lakhs in the case of non-traditional products, and Rs 2 crores in the case of traditional products can be recognised for three years as export houses. Recognised export houses are eligible for Government assistance from the Marketing Development Fund for a wider range of their activities and scales of grants are also higher than before.

The Board of Trade was set up in May 1962 to make a continuous review of export promotion policies in consultation with trade and industry. The Board has constituted committees and study groups to make reports on questions relating to trade practices and development and other relevant subjects. Vigorous efforts are being made to popularise Indian products abroad through publicity pamphlets and films. Export Promotion Councils have been set up for different commodities. The councils conduct surveys of foreign markets, research in better and new uses of commodities, etc. To co-ordinate the efforts of the councils and to help and guide them in the developmental activities, an apex body, namely, the Federation of Indian Export Organisations has been set up. Six Commodity Boards have also been set up for tea, coffee, cardamom, rubber, coir and silk (also see the chapter on "Industry"). These boards are statutory bodies and are responsible for production, development and export of the respective commodities.

The Handicrafts and Handlooms Export Corporation, a subsidiary of the State Trading Corporation, and the Indian Motion Pictures Export Corporation are engaged in promoting exports in their respective fields. The Export (Quality Control and Inspection) Act, 1963, empowers Government to notify measures of quality control and pre-shipment inspection of export products. An Export Inspection Council has been constituted under this Act to adopt measures for the introduction and enforcement of quality control and compulsory pre-shipment inspection of various exportable commodities. Quality control of textile goods and machinery is conducted under a separate legislation—the Textiles Committee Act, 1963. A Textiles Committee was set up under the Act in August 1964 to create an all-India network for compulsory quality control and inspection of goods intended both for export and the domestic market. To ensure that the entire inspection system functions efficiently, provisions have been made for training courses to surveyors and inspectors to keep them abreast of the latest techniques of inspection and testing.

The Directorate of Exhibitions looks after visual commercial publicity for Indian goods and regulates international fairs and national exhibitions held in India with foreign countries participating. Participation in international trade fairs/exhibitions in overseas countries is arranged by the Ministry of Foreign Trade and the Indian Council of Trade Fairs and Exhibitions, Bombay. Besides, the Export Promotion Councils/Commodity Boards also organise participation in specialised fairs/exhibitions abroad.

Trade centres and showrooms have been set up at important foreign commercial centres which have been following a vigorous programme of visual publicity of exportable goods. To associate the commercial trade actively in export promotion, the Indian Council of Trade Fairs and Exhibitions has been set up in Bombay. The Council acts as a complementary organisation to the Directorate of Exhibitions in arranging participation in fairs in selected areas.

The Indian Institute of Foreign Trade, set up by the Government under the Societies Registration Act, started functioning in April 1964. Primarily concerned with promoting exports, the Institute's broad lines of activity cover training, general research and marketing research including market/area surveys and commodity studies. Several executives in the Government as well as in industry and trade have already received training in the entire spectrum of international marketing.

The Indian Institute of Packaging, established in May 1966, started functioning effectively from the beginning of 1967. It organises training courses in packaging materials, such as aluminium, corrugated board, polyethylene, etc., and seminars on related subjects, *viz.*, standardisation and cost reduction in packaging.

TRADE AGREEMENTS

Trade agreements/arrangements and exchange of trade/economic delegations are important instruments in forging closer economic ties and increasing and diversifying the flow of trade both in pattern and direction.

During the year 1971-72, India concluded new trade agreements with Iraq and Peru. A new Treaty of Trade and Transit was concluded with Nepal. Trade and Payments Agreements were concluded with Hungary, Rumania and German Democratic Republic. Trade/Trade and Payments Agreements/Trade Arrangements were renewed/extended with the Arab Republic of Egypt, Jordan, Sudan, France, Yugoslavia and DRVN (North Vietnam). The Trilateral Trade Agreement between India, Bulgaria and Tunisia was also extended.

Indian trade delegations visited the Arab Republic of Egypt, Sudan, Afghanistan, Switzerland, Rumania, Hungary, Belgium, UK, Czechoslovakia, German Democratic Republic and Yugoslavia.

Trade and related delegations which visited India during 1971-72 included those from Iraq, Muscat and Oman, Afghanistan, Bangladesh, Nepal, Italy, France, USSR, Yugoslavia, Rumania, Bulgaria, Poland, Hungary and DPRK (North Korea).

An Indian Commercial Office was set up in the High Commission of India, Dacca.

STATE TRADING

STATE TRADING CORPORATION

The State Trading Corporation of India Ltd. (STC) was registered in May 1956 under the Indian Companies Act. Not being a statutory corporation, it has to comply with all the obligations and requirements of the Companies Act like any other limited company.

The central aim of the Corporation is to broaden and enlarge the scope of India's exports and to arrange for essential imports. Its activities are directed towards diversification of exports, expanding existing markets, development and promotion of exports of certain bulk commodities on a long-term basis and handling canalised imports of bulk commodities. It also often undertakes price support and buffer stock operations in certain commodities on Central Government directions. The Corporation works in close association with the trade and industry.

The STC group now includes the STC, Cashew Corporation of India (CCI), Handicrafts and Handlooms Export Corporation (HHEC), Projects and Equipment Corporation of India (PEC) and Indian Motion Picrtures Export Corporation (IMPEC).

Since the inception of the Corporation there has been a rapid growth in its turnover which has increased from Rs 9.2 crores in 1956-57 to Rs 211.5 crores in 1969-70*. During 1970-71 the STC group turnover was Rs 233.8 crores and the turnover for 1971-72 is provisionally placed at Rs 328.6 crores. In 1956-57 the Corporation's exports amounted to Rs 5.8 crores, which increased gradually to Rs 32.6 crores in 1962-63. The exports of the STC group during 1971-72 amounted to Rs 96.8 crores and imports to Rs 220.7 crores (both figures being provisional).

The export programme of the Corporation falls into five main groups, *i.e.*, consumer goods, leatherware, industrial products, development exports and produce exports. The Engineering and Railway Equipment Divisions of the holding company, the STC, were taken over by its subsidiary PEC in April 1971.

The STC's export comprises canalised and non-canalised items. In 1970-71 canalised items accounted for only 49 per cent of the Corporation's total exports compared to a share of 54 per cent in 1967-68. Another interesting feature is that among the canalised items, the share of non-traditional items has increased to 71 per cent in 1970-71 compared to 65 per cent in 1968-69.

With a view to developing exports of the products of the small and medium-scale, industries, the STC has organised assistance to small scale industry through a separate States Marketing Division, which liaises with the Small Industries Development Corporation, both at the States and apex level. It has now begun to adopt small industry's many problems, particularly in the field of exports and to help them in solving problems relating to finance, quality control, raw materials and marketing.

The Corporation has been arranging imports of some capital goods and industrial raw materials and also of certain scarce commodities required for the country's economy and industrial development. Large quantities of soyabean oil, hops, chemicals, raw wool, art silk yarn, newsprint, alkalies, tractors, printing and textile machinery, copra, palm oil and many other items have been imported.

The Industrial Raw Material Assistance Centre (IRMAC) of the Corporation which has been set up to import raw materials in bulk and distribute them to industry off-the-shelf at competitive prices against valid import licences for actual users/exporters achieved a turnover of Rs 1.87 crores in 1970-71. During 1971-72 its turnover increased to approximately Rs 12 crores. The IRMAC has offered ready availability of imported raw materials to actual users from various industries. Actual users from the small scale sector were able to obtain supplies against their small value licences at bulk prices.

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*This figure includes Rs 47.5 crores of fertilizer trade transferred to the MMTC w.e.f. 1 January 1970.

In pursuance of the Government's policy to ensure fair prices to growers of agricultural commodities and to maintain internal production at reasonable level, the Corporation has been called upon from time to time to undertake price support and buffer stock operations in respect of raw jute, rubber, tobacco, etc.

In order to keep in constant touch with the changing trends of trade in the world markets, the Corporation maintains a net-work of offices at Sydney, Hongkong, Bangkok, Singapore, Colombo, Beirut, Teheran, Nairobi, Lagos, Moscow, Belgrade, Budapest, Prague, East Berlin, Frankfurt, Paris, London and New York.

The paid up capital of the Corporation was Rs 1 crore in 1956-57 which was doubled to Rs 2 crores in 1958-59 and was increased to Rs 7 crores in 1970-71 through bonus shares. This has now been increased to Rs 8 crores during 1971-72. During the last 14 years up to 1969-70, it had contributed to the public exchequer Rs 43.03 crores including Rs 39.48 crores as income tax and accumulated reserves of the order of Rs 11.76 crores. During 1970-71 it paid to the public exchequer Rs 6.07 crores (Rs 4.67 crores as income tax and Rs 1.40 crores as dividends).

PROJECTS AND EQUIPMENT CORPORATION

The Projects and Equipment Corporation of India Ltd. was formed in April 1971 as a subsidiary of the State Trading Corporation of India with complete autonomy in its marketing and commercial operations. It has taken over from the STC the Engineering and Railway Equipment Divisions which deal with the import and export of engineering products and railway rolling stock and equipment.

The main objective of the Corporation is to co-ordinate and give point to the export of engineering equipment of all types and railway rolling stock and equipment. The Corporation lays special emphasis on the setting up of turn-key projects, complete industrial plants, railway lines, etc.

During the year 1971-72, the turnover of this Corporation was Rs 41 crores. It is estimated that this will go up to nearly Rs 60 crores during 1972-73.

HANDICRAFTS AND HANDLOOMS EXPORT CORPORATION

This is a subsidiary of the State Trading Corporation of India and is engaged in the export of Indian handloom and handicraft products. During 1971-72 its total exports amounted to Rs 4.12 crores; the comparable figure for the previous year being Rs 3.51 crores.

The Corporation also renders assistance to its business associates in respect of finance and raw materials, besides other promotional and developmental measures for the general benefit of the country's export trade in handicrafts and handloom goods as a whole.

MINERALS AND METALS TRADING CORPORATION

The Minerals and Metals Trading Corporation continues to play an important role in India's export and import trade. Total trade turnover of the Corporation during 1970-71 was about Rs 251 crores, an increase of over 80 per cent as compared with 1969-70. In 1971-72, total turnover was likely to be of the order of Rs 268 crores. Exports of the Corporation have not only been growing faster than India's general growth of 7 per cent envisaged in the Fourth Plan period, its share in the country's total export has also been steadily on the increase. From 5 per cent in 1965-66, it has risen to 7 per cent in 1970-71.

The exports at Rs 105 crores in 1970-71 were up by 16 per cent than in the preceding year. In 1971-72, the exports were of the order of Rs 87 crores, registering a decline over the previous year due to a multiplicity of inhibiting factors beyond the control of the Corporation. The Corporation handled the export of iron ore, manganese ore, ferro-manganese, ferro-manganese slag, coal/coke, mica and other minor minerals.

The Corporation has built up an expertise for import of essential raw materials for catering the needs of the industry in the country and is being entrusted increasingly with the import of such commodities in the field of non-ferrous metals as copper, zinc, lead, tin, aluminium, etc., and stainless steel and fertilizers. In 1970-71, the imports amounted to about Rs 145 crores which were almost three times as much as in the preceding year. In 1971-72, the imports of the Corporation exceeded Rs 180 crores.

INTERNAL TRADE

With the vastness of the country, its varied climate and diverse natural resources, the internal trade of India is naturally many times larger than its external trade. According to an estimate in the report of the National Planning Committee's Sub-committee on Trade, the value of the country's internal trade in 1947 was about Rs 7,000 crores as compared to about Rs 350 crores for external trade.

The internal trade of India can be classified under the broad heads of (i) rail-borne trade, (ii) river-borne trade, (iii) coasting trade, (iv) trade borne on other craft, and (v) trade by air. Complete and precise data about internal trade cannot be had, particularly because reliable statistics of trade pertaining to items (iv) and (v) are not available.

RAIL AND RIVER-BORNE TRADE

Statistics of rail and river-borne trade are based on the invoices of the railway and steamer companies and were recorded on 'import' basis for the period up to March 1965. From then on, they are being recorded on 'export' basis. For the purpose of these statistics, India is divided into a number of trade blocks, roughly representing the States of the Indian Union. The chief port towns of Calcutta, Bombay, Madras and Cochin are constituted as separate trade blocks. Similarly, the less important ports in Tamil Nadu and other places are grouped as 'other ports', each of which is treated as a separate trade block.*

Table 18.8 shows the movement of selected articles by rail and river between different trade blocks for selected years between 1960-61 and 1970-71. The internal trade of each block is not included in these figures.

COASTING TRADE

Coasting trade is recorded under two broad heads, (i) internal trade, *i.e.*, trade amongst the ports within the same maritime blocks, and (ii) external trade, *i.e.*, trade between one maritime block on the one

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* Up to March 1962, India was divided into 29 trade blocks. The number increased to 31 in April 1962, consequent on the bifurcation of Bombay State and further to 32 in April 1964 after the formation of the State of Nagaland. The number went up to 34 in April 1967 after Haryana was formed and Chandigarh became a Centrally-administered territory.

TABLE 18.8
RAIL AND RIVER-BORNE TRADE

(*thousand quintals*)

	1960-61	1965-66	1968-69	1969-70	1970-71
Coal and coke ..	3,14,796	3,31,919	3,73,062	3,76,438	3,25,138
Raw cotton ..	3,719	3,143	3,718	3,774	2,687
Cotton piece goods ..	2,643	2,563	1,689	1,408	1,104
Rice (not in husk) ..	22,283	16,898	17,256	22,162	25,156
Wheat	30,642	45,959	53,225	46,451	48,773
Raw jute	4,015	4,615	3,812	4,389	5,727
Iron & steel products ..	37,025	73,432	76,807	74,989	79,958
Oilseeds	9,509	7,796	9,730	8,668	7,657
Salt	13,539	20,860	24,468	21,956	22,252
Sugar (excluding khandsari sugar) ..	9,106	10,492	6,742	8,157	10,842

Note: The above statistics relate to quantities only, as value figures are not recorded in the railway and steamer companies' invoices. Besides, the trade carried by only one steamer company between three trade blocks was recorded from April 1960 to August 1965. The company suspended its river service from September 1965. Further, non-trade freight movements are also included because of the difficulty of isolating them.

hand and all other maritime blocks on the other. Table 18.9 shows the value of the coast-wise trade of India in selected years since 1960-61.

TABLE 18.9
COAST-WISE TRADE

(*Rs lakhs*)

	1960-61	1967-68	1968-69*	1969-70*
Imports				
Indian merchandise ..	20,989	21,104	17,390	18,127
Foreign merchandise** ..	661	—	—	—
Treasure ..	—	—	—	—
Total Imports ..	21,650	21,104	17,390	18,127
Exports				
Indian merchandise ..	21,503	21,104	17,390	18,127
Foreign merchandise** ..	785	—	—	—
Treasure ..	—	6	—	—
Total Exports ..	22,288	21,110	17,390	18,127
TOTAL TRADE ..	43,938	42,214	34,780	36,254

Source: Department of Commercial Intelligence and Statistics, Calcutta.

* The figures are provisional.

** The distinction between Indian and foreign merchandise was abolished from April 1964.

19 TRANSPORT

RAILWAYS

The Indian railway system with a 59,790* km of route is the largest in Asia and fourth largest in the world. It is also the biggest public undertaking in the country. The railways run 10,700 trains a day, operate over 7,065 stations covering a distance of about 12.3 lakh km every day. More than 67 lakh passengers, *i.e.*, more than the total population of Switzerland, board the trains and about 5.4 lakh tonnes of freight is carried daily. The railways have a fleet of over 11,100 locomotives, 35,000 coaching vehicles and 3,84,000 wagons or freight cars. They employ nearly 13.7 lakh persons. The total investment in the railways exceeds Rs 4,099 crores and their annual revenue is more than Rs 1,006 crores.

Progress under the Plans

The railways have made more progress since the beginning of planning than during the preceding one century. During the initial years of planning, rehabilitation and replacement was given top priority. Later on, stress was laid on modernisation. During the First Plan, outlay on the railways was Rs 423.23 crores, *i.e.*, 21.6 per cent of the total public sector outlay. In the Second and Third Plans, the outlay was Rs 1,043.69 crores (22.3 per cent of the total outlay) and Rs 1,685.8 crores (19.5 per cent). The Fourth Plan envisages an outlay of Rs 1,400 crores (including Rs 550 crores from the Railways' own Depreciation Reserve Fund). In addition, a sum of Rs 50 crores has been allocated outside the Plan outlay for providing mass transit facilities in the metropolitan cities of Bombay, Calcutta, Delhi and Madras.

The route length of the Indian railways has increased from 53,596 km in 1950-51 to 59,790 km (excluding 207 km owned by private agencies) in 1970-71. Passengers using the trains nearly doubled during the same period. The goods traffic has also more than doubled. In the case of rolling-stock, the number of diesel locomotives increased by more than sixty-eight times and electric locomotives by more than eight times. The number of coaching vehicles went up by more than 79 per cent and wagons by about 87 per cent.

Tables 19·1 and 19·2 show the progress of Indian railways since 1950-51:

TABLE 19.1
PROGRESS OF INDIAN GOVERNMENT RAILWAYS

Year	Route length (kilometres)			Running track (km)	Passengers originating (lakhs)	Goods tonnes originating (lakhs)
	Electrified	Non-electrified	Total			
1950–51	388	53,208	53,596	59,315	12,840	930
1955–56	388	54,623	55,011	60,845	12,750	1,159
1960–61	748	55,499	56,247	63,602	15,940	1,562
1965–66	2,423	55,976	58,399	68,375	20,820	2,030
1969–70	3,553	56,131	59,684	71,251	23,380	2,079
1970–71	3,706	56,084	59,790	71,669	24,310	1,965

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* The data relate to Indian Government Railways for 1970–71.

TABLE 19.2
ROLLING-STOCK

Year	Number of locomotives				Number of coaching vehicles including electric multiple units	Number of wagons (units)
	Steam	Diesel	Electric	Total		
1950–51	8,120	17	72	8,209	19,541	2,05,596
1955–56	9,026	67	79	9,172	23,192	2,40,756
1960–61	10,312	181	131	10,624	28,323	3,07,907
1965–66	10,613	727	403	11,743	32,832	3,70,019
1969–70	9,700	1,091	552	11,343	34,732	3,83,891
1970–71	9,387	1,169	602	11,158	35,068	3,84,003

Modernisation of Railways

The data given above also indicate the trend towards modernisation. The steam locomotives are gradually being replaced by electric and diesel locomotives. The manufacture of steam locomotives has, in fact, been discontinued since January 1972 and the stock of steam locomotives with the Indian railways is gradually diminishing. Correspondingly the number of electric locomotives is going up, the number having increased from 72 in 1950-51 to 602 in 1970-71. Electrified route length also increased from 388 km to 3,706 km during the same period. During 1970-71, 153 km of route comprising mainly Bilaspur-Durg section of the South-Eastern Railway was electrified.

The number of diesel locomotives has also gone up from 17 in 1950-51 to 1,169 in 1970-71. By March 1971, diesel engines were operating over 24,250 route kilometres. Diesel and electric locomotives carried 70.2 per cent of the total goods traffic in 1970-71, although in terms of numbers they were only 15 per cent of all locomotives on line. In 1960-61, they carried only 10 per cent traffic. Diesel locomotives are also being utilised for hauling mail and express trains on a selective basis.

A sum of Rs 15.7 crores was spent on modernisation and improvement of signalling and telecommunications during 1970-71. Route relay interlocking was installed at Santa Cruz on the Western Railway. Panel interlocking was provided at two stations. Track circuits on the reception lines of yards were provided at 147 stations; colour light signalling was introduced at 20 stations and multi-aspect upper quadrant signalling was introduced at 42 stations. Automatic block signalling was provided on 22 track kilometres.

The multi-channel microwave link on Bilaspur-Bhilai (part of Chakradharpur-Bilaspur-Bhilai scheme) and Bhilai-Gondia (part of Bhilai-Nagpur scheme)—both in the South-Eastern Railway—was commissioned.

A large number of teleprinter links have been installed to provide inter-yard communication facilities and for transmission of reservation messages. During 1970-71, multi-channel microwave links over 117 kilometres and teleprinter channels over about 6,485 route kilometres were provided.

Rail-link with Bangladesh

An important development during 1971-72 was the forging of the rail-link with Bangladesh. The first train from India steamed into Bangladesh on its way to Jessore on 29 December 1971. The rail-link between East Bengal and West Bengal was cut off in 1965 following the Indo-Pakistan conflict. Assam has also been linked with Bangladesh.

Jammu was put on the railway map of India when a goods train steamed into the station on 2 October 1972. Two months later, the first passenger train reached Jammu on 2 December 1972. The construction of this 77-km link from Kathua to Jammu was taken in hand in August 1969. The project is estimated to have cost Rs 10.81 crores. The route involved the building of 215 bridges including 47 major bridges. This is one of the costliest and most difficult projects undertaken byt he Indian railways. The rail-link would help reduce the huge expenditure on and the time taken in transportation of essential commodities to Jammu and Kashmir State by road. It will also facilitate movement of timber, fruit, etc., from the State to other parts of the country.

Proposed Schemes

During the Fourth Plan another 1,679 km of rail route is proposed to be electrified and 3,000 km dieselised. Sections approved for electrification are Virar-Sabarmati, Waltair-Kirandul, Panskura-Haldia, Tundla-Delhi and Madras-Vijayawada. Electrification of Tundla-Delhi route is expected to be completed by the end of 1975.

The railways have drawn up a perspective plan for a phased conversion of all sections from metre to broad gauge at an estimated cost of a little over Rs 2,000 crores. It will take nearly 15 years to implement the plan.

Passenger Traffic

Over 24,311 lakh passengers travelled by rail in 1970-71 as compared to 12,750 lakhs in 1955-56. Out of these, a very large majority—over 23,626 lakhs in 1970-71 and 12,395 lakhs in 1955-56—travelled by III class. Earnings from III class passengers were Rs 25,979 lakhs in 1970-71 as compared to Rs 9,486 lakhs in 1955-56. Thus III class passengers form the bulk of the railway users and are also the main source of income. As such, more and more amenities have been provided for them since Independence. Thirty-four Janata trains are run exclusively for them and two-tier and three-tier sleeper coaches have also been introduced for their convenience on all the mail and express trains. All-steel and light-weight integral type coaches for safe and relaxed travel have been provided. Third class coaches are now fitted with electric fans. The task of providing basic amenities like waiting halls, drinking water supply, latrines and proper booking arrangements at all the stations on the Indian railways was completed in 1970-71.

Average rate charged per passenger per kilometre was 1.98 paise (ordinary) and 2.92 paise (mail/express) for III class passengers, 4.41 paise (ordinary) and 5.89 paise (mail/express) for II class, 6.58 paise for I class and 18.5 paise for air-conditioned class passengers. The rates for III class passengers are among the lowest in Asia.

Goods Traffic

To meet the daily needs of the people, the railways carry a large variety of goods, including consumer goods, raw materials for industries, finished products, etc. Most of the bulk commodities like coal, iron and other ores, steel, cement, foodgrains, fertilizers and petroleum products are transported by the railways. About 90 per cent of the country's coal moves by rail. The steel industry depends entirely on rail transport for the movement of raw materials and finished products. More than 17,000 tank wagons are used for the transportation of petroleum products. The railways carried nearly 1,965 lakh tonnes of goods in 1970-71 as compared to 1,159 lakh tonnes in 1955-56. The carriage earnings from 75 commodities were Rs 601 crores during 1970-71 as against Rs 177 crores in

1955-56. The principal commodities carried by the railways are shown in Table 19·3.

TABLE 19.3
PRINCIPAL COMMODITIES CARRIED

(thousand tonnes)

Commodity	1955–56	1960–61	1965–66	1969–70	1970–71
Coal ..	35,888	50,396	66,741	70,979	64,249
Cement	4,022	6,548	8,649	10,699	11,018
Iron and steel ..	3,713	7,588	10,077	9,980	9,269
Metallic ores (other than manganese ore)	4,443	11,140	18,623	21,939	22,610
Manganese ore ..	1,400	1,230	1,497	1,421	1,478
Foodgrains ..	9,187	12,659	14,514	15,100	15,084
Raw jute ..	520	644	763	756	687
Tea	262	250	203	272	245
Paper and paper products	260	442	670	855	889
Jute manufactures..	294	263	275	300	366
Raw cotton ..	751	536	485	443	376
Cotton textiles ..	557	380	308	235	190
Oil seeds ..	1,794	1,517	1,470	1,172	1,044
Sugarcane ..	3,463	3,237	2,717	2,005	2,780
Sugar	1,357	1,488	1,543	986	1,258
Salt	1,887	1,981	2,569	2,461	2,521
Chemical manures..	803	1,394	2,452	4,645	4,695
Mineral oil ..	3,323	4,700	7,495	8,798	8,906

The container service was introduced in recent years to provide a door-to-door service. The containers are carried on guaranteed schedules by fast goods trains. The service now covers Bombay-Ahmedabad, Bombay-New Delhi, Madras-Bangalore, Howrah-New Delhi, Bombay-Madras, Bombay-Secunderabad and Bombay-Bangalore routes and is to be extended on other routes progressively.

Punctuality Ratio

The punctuality ratio, *i.e.*, percentage of passenger and mixed trains not losing time to the total number of trains run on all Government railways in 1970-71 was 82.33 on broad gauge and 87.41 on metre gauge railways.

Railway Finances

Railway finances were separated from general finances in 1924-25 to enable the railways to pursue their own financial policies. The railways have to contribute to the General Exchequer a fixed rate of dividend (to be periodically reviewed) on the capital invested. The quantum of contribution to the General Revenues was reviewed by Parliamentary Convention Committees in 1949, 1954, 1960 and 1965.

A new Convention Committee was constituted in August 1971. The Committee submitted an interim report dealing with matters concerning the rate of dividend and the reserve funds for 1971-72 and 1972-73 only. The recommendations followed broadly the 1965 Convention, with some important modifications. The existing provisions for payment of dividend at different rates on the capital-at-charge on 31 March 1964 (*i.e.*, 5.5 per cent) and fresh capital invested thereafter (6 per cent) and payments to the States in replacement of the tax on passenger fares have been retained. Some relief has also been afforded to railway finance. It is estimated that these concessions will reduce the dividend payable to General Revenues by Rs 21.53 crores in 1971-72 and Rs 22.19 crores in 1972-73.

Table 19.4 gives an outline of Government railway finances since 1955-56.

TABLE 19.4 RAILWAY FINANCES

(*Rs crores*)

Item	1955–56 Actuals	1960–61 Actuals	1965–66 Actuals	1970–71 Actuals	1971–72 Approximate	1972–73 Budget Estimates
Passenger earnings:						
Upper classes	12.85	15.18	27.64	35.71	37.06	38.80
Third class	94.86	116.41	191.53	259.78	278.94	290.07
Other coaching earnings	20.87	27.21	39.40	62.11	66.00	66.39
Goods earnings	180.28	286.14	465.49	618.23	665.00	716.24
Other sundry earnings	6.81	12.63	22.25	33.40	34.60	35.50
Total earnings	315.67	457.57	746.31	1,009.23	1,081.60	1,147.00
Suspense	+0.62	—0.77	—12.74	—2.54	—3.60	—3.90
Gross traffic receipts	316.29	456.80	733.57	1,006.69	1,078.00	1,143.10
Ordinary working expenses	212.95	313.15	485.85	732.34	784.32	809.14
Appropriation to depreciation reserve fund	45.00	45.00	85.00	100.00	105.00	110.00
Appropriation to pension fund	—	—	12.00	14.85	11.38	15.85
Payment to worked lines	0.27	0.09	0.19	0.15	0.16	0.15
Total working expenses	258.22	358.24	583.04	847.34	900.86	935.14
Net miscellaneous expenditure	7.73	10.69	15.69	14.62	15.91	15.73
Net railway revenues	50.34	87.87	134.84	144.73	161.23	192.23
Dividend to general revenues	36.12	55.86	116.28*	164.57	152.15	159.70
Net surplus (+) or deficit (—)	+14.22	+32.01	+18.56	—19.84	+9.08	+32.53
Operating ratio (per cent)	81.6	78.4	79.5	84.2	83.5	81.8
Capital-at-charge	968.98	1,520.87	2,680.32	3,330.78	3,482.70	3,641.40

* This includes Rs 12.50 crores contributed to the General Revenues in lieu of the merger of passenger tax with passenger fares.

Staff Welfare

The railways are the largest employers in the country. From over 9.1 lakhs in 1950-51, the number of employees rose to over 13.7 lakhs in 1970-71 and cost of staff went up from Rs 113.82 crores to Rs 460.63 crores annually. Increasing attention is now given to staff welfare. The number of residential units built during the first three Plans was 1,68,500 . Over 36,480 units were built between 1966-67 and 1970-71. At the end of 1970-71 there were 97 hospitals and 554 health units. The railways also run 22 holiday homes at hill stations and other places of recreation. A number of schools and hostels for the dependents of the employees are also maintained and scholarships are given to students. The cost of welfare schemes during 1970-71 was Rs 26.64 crores which was more than eight times compared to the cost in 1950-51.

Administration

The responsibility for the administration and management of Government railways vests in the Railway Board, under the overall supervision of a Cabinet Minister. The Board consists of a Chairman, who is *ex-officio* Principal Secretary to the Union Ministry of Railways, the Financial Commissioner and three other members, who are all *ex-officio* Secretaries to Government of India in the Union Ministry of Railways.

Railway Zones

The railways are divided into nine zones, each headed by a General Manager, who is responsible to the Railway Board for operation, maintenance and financial position of the Railway.

The nine zones, with their headquarters and the route kilometres in brackets, are: Central (Bombay-VT, 5,764), Eastern (Calcutta, 4,144), Northern (New Delhi, 10,676), North-Eastern (Gorakhpur, 4,977), North-east Frontier (Maligaon, Gauhati, 3,632), Southern (Madras, 7,445), South-Central (Secunderabad, 6,168), South-Eastern (Calcutta, 6,837) and Western (Bombay-Churchgate, 10,147).

Constant and close consultation between the public and the railway administration is secured through various committees including (i) Divisional Railway Users' Consultative Committee for each Division; (ii) Zonal Railway Users' Consultative Committee at the headquarters of each railway zone; and (iii) the National Railway Users' Consultative Council at the Centre.

Research and Training

The Railway Board has set up a Research, Design and Standards Organisation at Lucknow with sub-stations at Lonavla and Chittaranjan to investigate problems referred to it by the railway workshops and the Central Standards Office (Railways).

The four major training institutions are (i) Railway Staff College, Baroda, (ii) Indian Railways Institute of Advanced Track Technology, Poona, (iii) Indian Railways Institute of Signal Engineering and Telecommunications, Secunderabad, and (iv) Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur. These institutions provide training facilities for Indian and foreign railway officers.

Non-Government Railways

Apart from Government railways, 454 route kilometres of railway lines were being operated on six routes (all narrow gauge lines) by private agencies on 31 March 1970. During 1970-71, three light railway companies with an aggregate kilometrage of 246 closed down their operations.

Manufacture of Locomotives and Coaches

As part of a plan to achieve self-sufficiency in railway rolling-stock, the Ministry of Railways have established the Locomotive Works at Chittaranjan (West Bengal), the Diesel Locomotive Works at Varanasi (UP) and the Integral Coach Factory at Perambur (Tamil Nadu).

Production of steam locomotives has been discontinued from January 1972. Since the commencement of production in 1950, up to January 1972, Locomotive Works at Chittaranjan had delivered 2,351 steam locos. Production of electric locomotives was taken up in 1961 and by the end of March 1972, it had produced 314 AC and 30 DC broad gauge electric locos. The Chittaranjan Locomotive Works also produced 111 WDS-4 diesel shunting locomotives and

10 narrow gauge diesel locos ZDM-3 during the two years 1970-71 and 1971-72. The indigenous content of AC electric locos is now about 78.6 per cent, and of diesel shunting locomotives about 70 per cent.

The Diesel Locomotive Works, set up at Varanasi, with a planned capacity of 150 main line broad gauge diesel electric locos per year, started with assembling locomotives from imported components. The first loco was commissioned in January 1964 and up to the end of March 1972, it had turned out 427 BG and 80 MG locomotives in addition to 3 OBO diesel shunters and 21 WDS-5 diesel electric shunters (the latter assembled from components received from the USA). The average indigenous content of broad gauge locomotives at present is 86.75 per cent and that of metre gauge locomotives 87.2 per cent.

The Integral Coach Factory at Perambur went into production in October 1955. Originally designed to produce only broad gauge coach shells, its production has been expanded and diversified to turn out furnished coaches, both broad and metre gauge, electric multiple unit stock, diesel rail cars and air-conditioned coaches. From its inception to the end of March 1972, it had produced 8,703 passenger coaches (unfurnished shells). The furnishing unit, which was added in 1957-58, had equipped 6,688 coaches. Besides, the Bharat Earth Movers Ltd., Bangalore, are producing about 270 broad gauge coaches per year. Messers Jessop & Co. Ltd., Calcutta, also produced 190 metre gauge coaches and 36 BG electric multiple unit coaches during the year.

Wagon requirements of the railways are largely met by production in the private sector and to some extent from railway repair workshops. There are 13 units with an annual production capacity of 27,815 wagons (in terms of four wheelers) in the private sector. There are three railway workshops building wagons with a capacity of approximately 2,860 units per year. The production of wagons in 1970-71 was 11,125 and in 1971-72 it was 8,532.

ROADS

The Indian road system is one of the largest in the world, the present road length being well over a million kilometres. At the time of Independence, India had only 3,88,226 km of roads. A special feature of the post-Independence era is the construction of *kacha* and approach roads under the CD programme joining thousands of villages with other roads leading towards towns.

Development Under the Plans

The first three Five Year Plans earmarked Rs 831.39 crores for development of roads and the subsequent three Annual Plans provided Rs 303.47 crores. In the Fourth Plan, a provision of Rs 871 crores has been made, out of which Rs 328 crores are earmarked for the development of national highways.

Table 19.5 shows the progress of road construction from 1947 to 1969-70.

TABLE 19.5
PROGRESS OF ROAD CONSTRUCTION

('000 *kilometres*)

Type	1947	1951	1961	1966	1968–69*	1969–70
Surfaced	146	157	231	283	393	400
Unsurfaced**	242	243	448	552	778	789
TOTAL	388	400	679	835	1,171	1,189

* Also includes roads maintained by Departments other than PWD and local bodies.
**Includes *kacha* roads constructed under CD and NES Blocks.

In terms of area and population, the total road length in the country works out to about 36 kilometres for every 100 sq. km of area and 217 kilometres for every one lakh of population (for the year 1969-70). The surfaced road length is 12 km for every 100 sq. km of area and 73 kilometres for every one lakh of population.

National Highways

In 1947, the Central Government assumed responsibility for the construction and maintenance of certain roads selected by them as suitable for inclusion in the system of national highways. These were statutorily declared as national highways under the National Highways Act, 1956. State highways and district and village roads are the responsibility of the State Governments.

On 1 April 1947, when the Centre took over the liability for the national highways, approximately 2,575 km of roads and thousands of culverts and bridges did not exist. Due to addition of new roads to the national highways system missing road links subsequently increased and up to 31 March 1972 missing links constructed totalled 3,387 km. The number of major bridges constructed was 185.

The present national highways system includes roads of total length of 28,819 km. Of this, 4,819 km were declared as national highways between July 1971 and March 1972.

Other Roads

The Government of India also aid the development of certain arterial roads in the States. These include, *inter alia*, the West Coast Road in the States of Kerala, Maharashtra and Mysore and the Union Territory of Goa and the 1,600-km long Bareilly-Amingaon Lateral Road passing through Uttar Pradesh, Bihar, West Bengal and Assam.

Central assistance is also given for the development of certain selected State roads of inter-State or of economic importance. Commencing from the Fourth Plan, the pattern of Central financial assistance for such projects has been changed from grants-in-aid to 100 per cent loan assistance which is applicable both to works already in progress and new works yet to be approved. A sum of Rs 380 lakhs was approved for such works under the revised pattern during 1971-72 as against Rs 206.38 lakhs in 1970-71.

Roads in the State Sector

Under the programmes drawn up by the States and Union Territories for the Third Plan, *i.e.*, up to 1966, about 53,000 km of surfaced roads were added to the road system of the country. Another 42,000 km of surfaced roads were added during 1966-69.

Border Roads

The Border Roads Development Board was set up in March 1960 to accelerate the economic development of the North and North-Eastern border areas by making these areas accessible through the development of arterial routes. The Board's immediate programme includes the construction of about 7,200 km of new roads and improvement of about 6,300 km of the existing roads and surfacing of about 11,400 km of roads.

The Border Roads Organisation has constructed the world's highest road from Manali to Leh. The average altitude of the terrain is 4,270 metres. The road negotiates four passes—4,875 to 5,485 metres high. It has reduced substantially the distance between Chandigarh and Ladakh.

In recent years, the Organisation has also taken up the construction of other projects like townships, schools, etc., on agency basis in difficult and remote areas where contractors and labour are not easily available or where speedy execution is essential.

The State and Central Public Works Departments have been entrusted with the work in less forward areas. All the projects are financed by the Central Government which also provides for the maintenance of most of the roads in forward areas.

The road length in various States is given in Table 19.6.

TABLE 19.6
LENGTH OF ROADS IN INDIA (1969–70)

(*kilometres*)

State/Union Territory	Surfaced roads	Unsurfaced roads	Total
Andhra Pradesh	37,010	63,564	1,00,574
Assam	6,785	39,877	46,662
Bihar	24,454	61,202	85,656
Gujarat	19,594	32,052	51,646
Haryana	7,154	2,730	9,884
Himachal Pradesh	2,263	19,515	21,778
Jammu and Kashmir	4,165	14,108	18,273
Kerala	21,285	38,068	59,353
Madhya Pradesh	29,638	72,270	1,01,908
Maharashtra	40,579	36,580	77,159
Mysore	48,775	25,128	73,903
Orissa	12,993	53,689	66,682
Punjab	12,220	64,170	76,390
Rajasthan	20,963	50,025	70,988
Tamil Nadu	48,805	19,473	68,278
Uttar Pradesh	36,507	1,25,672	1,62,179
West Bengal	18,919	39,471	58,390
NEFA	59	3,823	3,882
Delhi	2,671	136	2,807
Manipur	990	1,831	2,821
Tripura	866	1,834	2,700
Nagaland	342	4,573	4,915
Others	2,457	19,443	21,900
TOTAL	3,99,494	7,89,234	11,88,728

Research Activities

The Central Road Research Institute, Delhi, was opened on 16 July 1952 for research on road engineering. The Institute also gives technical advice to the State Governments on various problems concerning road works, etc. The Central Designs Office of the Roads Wing deals with the type designs for route making for the national highways, principles to be followed in the erection of advertisement boards on road sides, form of recording data on bridges, security of designs for bridges, production of road rollers, manufacture of road-making machinery, etc.

Road Transport

The number of motor vehicles on roads at the end of March 1970 was 16.36 lakhs, nearly eight times more than at the time of Independence. The share of road transport in passenger traffic has gone up from 26.6 per cent in 1950-51 to 49.6 per cent in 1969-70. A sum of Rs 615 crores was realised from various road and vehicle taxes in 1970.

Motor Vehicles

The total number of motor vehicles on roads, *i.e.*, 16.36 lakhs, included 4.93 lakh motor cycles and auto-rickshaws, 6.19 lakh private cars and jeeps including cabs, 0.89 lakh public service vehicles, 3.22 lakh goods vehicles and 1.13 lakh miscellaneous vehicles. Maharashtra had the maximum number of vehicles—2,77,783 followed by West Bengal and Delhi. The Statewise break up of motor vehicles is given in Table 19.7.

TABLE 19.7
DIFFERENT TYPES OF MOTOR VEHICLES IN STATES

(as on 31 March 1970)

States/Union Territories	Motor cycles, scooters and auto-rickshaws	Jeeps, cars and cabs	Passenger buses	Goods vehicles	Miscellaneous vehicles	Total
Andhra Pradesh	33,957	34,485	6,469	17,659	11,545	1,04,115
Assam	3,993	16,286	2,743	14,047	4,038	41,107
Bihar	20,002	27,663	4,196	15,572	4,486	71,919
Gujarat	46,549	34,457	5,322	28,707	11,678	1,26,713
Haryana*	8,788	4,002	1,716	7,482	6,894	28,882
Himachal Pradesh*	540	836	580	1,710	280	3,946
Jammu & Kashmir*(E)	1,825	2,900	1,020	4,480	190	10,415
Kerala	13,829	43,256	6,018	12,458	2,607	78,168
Madhya Pradesh*(E)	20,525	19,874	4,820	15,860	6,975	68,054
Maharashtra	72,917	1,22,413	9,884	56,320	16,249	2,77,783
Mysore	41,524	34,297	6,601	19,603	7,923	1,09,948
Nagaland	63	985	—	534	—	1,582
Orissa	7,579	11,536	1,615	8,918	2,353	32,001
Punjab*(E)	13,686	9,182	2,500	8,020	2,636	36,024
Rajasthan*	14,910	21,374	7,173	17,316	10,754	71,527
Tamil Nadu	32,933	55,836	8,245	17,678	3,458	1,18,150
Uttar Pradesh	38,654	34,126	8,139	23,976	2,990	1,07,885
West Bengal*	26,402	86,160	8,400	33,560	16,060	1,70,582
Andaman & Nicobar Islands	277	195	28	274	91	865
Chandigarh* (E)	2,954	1,021	40	94	65	4,174
Delhi	84,872	53,079	2,745	11,032	548	1,52,276
Dadra & Nagar Haveli	226	90	—	32	—	348
Goa, Daman & Diu*	4,027	947	655	4,365	164	10,158
Manipur	365	1,135	196	686	184	25,606
Pondicherry	1,394	1,383	99	232	469	3,577
Tripura	357	1,474	255	1,168	374	3,628
TOTAL	4,93,148	6,18,992	89,459	3,21,783	1,13,011	16,36,393

* Relates to 1968–69. (E) Stands for estimated.

Nationalised Transport

Nationalisation of passenger road transport was undertaken after Independence primarily to provide more and better facilities to the passengers. Barring Goa and Pondicherry, most of the States and Union Territories have nationalised passenger traffic in varying degrees. In Gujarat, Himachal Pradesh, Maharashtra, Orissa and Delhi, nationalised buses run on most of the routes. In the country as a whole, as on 31 March 1970, 39 per cent buses were being run by the public sector undertakings. Statutory corporations have been set up under the Road Transport Corporations Act, 1950 in many States. In the remaining States, the nationalised services are operated by departmental undertakings, municipal undertakings or registered companies. In most of the big cities, city bus services are municipally owned.

Goods transport continues to be almost exclusively in the private sector. In Assam and North Bengal areas, however, the Central Road Transport Corporation operates with its fleet of about 270 vehicles to maintain essential supplies in different regions.

Transport Bodies

The Inter-State Transport Commission looks after the development, co-ordination and regulation of road transport services on inter-State routes. It has brought about reciprocal agreements between almost all the States.

To ensure co-ordination between different modes of transport on the one hand and Central and State policies on the other, the Government of India have set up the Transport Development Council.

An Association of State Road Transport Undertakings was set up in 1963 to co-ordinate the activities of the undertakings and to secure procedural uniformity, higher standards of service and economic operation.

Revenue from Road Transport

Various road and vehicle taxes resulted in a revenue of Rs 614.9 crores in 1970. Of these, Rs 404.32 crores were claimed by the Centre and Rs 210.59 crores by the States. The sources of revenue were: import duty on motor vehicles and accessories (Rs 13.31 crores), excise duty on motor vehicles (Rs 24.33 crores), excise duty on tyres and tubes (Rs 51.86 crores), import duty on tyres and tubes (Rs 1.33 crores), import duty on motor fuel (Rs 4.39 crores), excise duty on motor fuel (Rs 309.10 crores), motor vehicle taxes and fees (Rs 95.46 crores), sales tax on motor fuel (Rs 57.35 crores) and passenger and goods taxes (Rs 57.77 crores). Maharashtra gets maximum revenue from roads and goods taxes followed by Tamil Nadu and Uttar Pradesh.

INLAND WATERWAYS

The length of navigable waterways in India is about 14,150 km of which about one-fifth is navigable by steamers. Important among them are the Ganga, the Brahmaputra and their tributaries, the Godavari, the Krishna and their canals, the backwaters and the West Coast Canals of Kerala, the Buckingham Canal in Andhra Pradesh and Tamil Nadu, the Delta Canals in Orissa and the Mandovi and the Zuari in Goa.

IWT

The Inland Water Transport Directorate (IWT) was set up in March 1965 under the Ministry of Transport and Shipping to carry out technical examination of the schemes received from the State Governments and render advice. The Ganga-Brahmaputra Water Transport Board, which was set up earlier to co-ordinate the activities of the State Governments of the north-eastern region for the development of water transport in that region, has been merged with the Inland Water Transport Directorate. This Directorate has a regional office at Patna to attend to the river conservancy and hydrographic surveys on the Ganga and to operate services between Patna and Ghazipur.

The Central Inland Water Transport Corporation Ltd. (a Government of India undertaking) runs lighterage service and looks after the work of the Rajabagan Dockyard. The conservancy works in the Brahmaputra are also being carried out by the Corporation.

In the Fourth Plan, only "selected and well-defined schemes pertaining to inland water transport", have been take up as Centrally-sponsored schemes, apart from the spill-over of the Third Plan. It includes schemes connected with the running of commercially viable river services in selected regions and supporting measures therefor, as also the schemes for improvement of waterways essential for exports. The Central schemes include the purchase of capital equipment, machines, and craft and expansion of the Rajabagan Dockyard of the Central Inland Water Transport Corporation and other schemes like technical organisation, training establishment, terminal facilities at Pandu and Jogigopa ports, traffic surveys and river conservancy. A provision of Rs 5 crores for Central and Rs 4 crores for Centrally-sponsored schemes has been included in the Fourth Plan in addition to Rs 4 crores in the State Plans. In the Annual Plan 1972-73, a provision of Rs 124.90 lakhs has been made for the Central schemes and Rs 105.87 lakhs for the Centrally-sponsored schemes. The above provision does not include Rs 13.00 lakhs provided by the Ministry of Home Affairs in the Union Territories' Plan for improvement of Combarjua canal in Goa.

The Inland Water Transport Committee (1970) set up by the Ministry of Shipping and Transport under the chairmanship of Shri B. Bhagvati. M.P., recommended *inter alia* a provision of Rs 27.3 crores phased over the Fourth and Fifth Five Year Plans for implementation in various regions as Centrally-sponsored schemes. Out of these, 20 schemes costing Rs 5.97 crores have so far been approved for implementation in different States. The remaining schemes are under consideration in consultation with the State Governments concerned.

In pursuance of one of the recommendations of the Committee, a high-powered board, known as the Central Inland Water Transport Board, under the chairmanship of the Minister of Shipping and Transport, has been set up to lay down guidelines and general policies for the development of inland water transport in the country.

Transport Services through Bangladesh

The inland water transport services between Calcutta and Assam were discontinued in the wake of the Indo-Pak conflict in 1965. With the emergence of Bangladesh as an independent country, these services have been resumed through Bangladesh waters. A trade agreement was entered into between the Government of India and the Government of Bangladesh on 28 March 1972, wherein the two Governments agreed to make mutually beneficial arrangements for use of waterways for commerce between the two countries and for passage of goods between two places in one country through the territory of the other. Detailed arrangements for running of the inland water transport services to Bangaldesh and to Assam through Bangladesh have been worked out in consultation with the Government of Bangladesh.

SHIPPING

History bears out that India at one time had a prosperous shipping and ship-building industry. Indian ships sailed the high seas and carried trade and commerce to far-flung lands. It was eclipsed during the days of foreign domination, but after Independence, once again shipping industry made tremendous progress. India is now the second largest ship-owning country in Asia though it ranks sixteenth in the world. Indian ships operate on most of the sea routes of the world.

Indian tonnage was 25.20 lakh GRT on 1 April 1972, as against less than 2.00 lakh GRT in August 1947. Of a total of 257 ships, 62 ships (2.17 lakh GRT) were on coastal trade and 195 (23.03 lakh GRT) were on the overseas trade. The tonnage at the end of the Second and Third Plans was 8.57 lakh GRT and 15.40 lakh GRT respectively. The Fourth Plan envisages a target of 40 lakh GRT (35 lakh GRT in operation and 5 lakh GRT on order).

Shipping Bodies

There is a National Shipping Board to advise the Government on all matters relating to Indian shipping. It was reconstituted in January 1972, under the chairmanship of Shri S.B.P. Pattabhi Rama Rao. There is also a Shipping Co-ordination Committee in the Department of Transport to bring about better liaison between various Ministries of the Government of India and other Government organisations on the one hand and various shipping companies on the other. The purpose is to ensure maximum utilisation of the available shipping capacity. An All India Shipping Council discusses and negotiates freight and shipping problems with Conferences and shipping companies.

The Indian National Steamship Owners' Association, which has been renamed as Indian National Ship Owners' Association, came into existence in 1930 with the object of organising united action to promote and protect the interests of national shipping, ship-building and allied industries. The Association has been given due representation on most of the Government bodies concerned with shipping.

Shipping Companies

The Shipping Corporation of India and the Mogul Lines are operating in the public sector and 33 shipping companies in the private sector. The Government also acquired all the shares of the Jayanti Shipping Company in October 1971. The Shipping Corporation of India has a fleet of 79 vessels with 8,84,596 GRT. It is operating on all the important sea trade routes. The Corporation also operates overseas tanker services, overseas bulk carrier services and coastal tanker services under charter besides coastal services (for coal transport, etc.). Two new cargo liner services were also commenced during 1970. These were (i) East Coast India-East Canada-Great Lakes, and (ii) India-Mauritius services. The Corporation's total income during 1970-71 amounted to Rs 65.84 crores.

The Mogul Lines Ltd., carries mainly the Haj pilgrims to Jeddah from Bombay and back. Besides a fleet of four passenger-cum-cargo steamers, it has a collier and a tanker. The total GRT of the fleet of the company stands at about 49,900 tons. The Jayanti Shipping Company had a GRT of about 2.95 lakhs on 31 March 1972.

Among the major shipping companies in the private sector owning one lakh or more GRT are the Scindia Steam Navigation Company (3.70 lakh GRT), India Steamship Company (1.55 lakh GRT), Great Eastern Shipping Company (1.81 lakh GRT) and South India Shipping Corporation (1.22 lakh GRT).

The cargo carried by Indian ships in India's overseas trade was 96 lakh tonnes in 1968-69, 106 lakh tonnes in 1969-70 and 100 lakh tonnes in 1970-71.

Training Institutions

There are six centres for the training of merchant navy officers and ratings. These are T.S. 'Rajendra', Bombay (pre-sea training course for navigating cadets), the Marine Engineering Training College, Calcutta and Bombay (training course for engineering cadets), the Lal Bahadur Shastri Nautical and Engineering College, Bombay (post-sea instructional course for navigating and engineering cadets, etc.), T.S. 'Bhadra', T.S. 'Mekhala' and T.S. 'Naulakhsi' (pre-sea training for deck and engine room ratings and bhandari cooks).

SHIP-BUILDING

India has three ship-building yards—the Hindustan Shipyard at Visakhapatnam in Andhra Pradesh, Garden Reach Workshops at Calcutta and Mazagon Dock at Bombay. A fourth shipyard at Cochin is under construction. All the shipyards are in the public sector.

Hindustan Shipyard

The Hindustan Shipyard, Visakhapatnam, has built 55 ships since 1947. The present production capacity of the shipyard is 2-3 ships of 12,500 DWT each per year. An integrated development programme was sanctioned in October 1969 which would cost Rs 7.66 crores and is expected to be implemented during the next three or four years.

This programme is expected to raise the production capacity to 6 ships in the range of 12,500 to 14,500 DWT per year. A graving dock project at an estimated cost of Rs 4.82 crores has almost been completed. It has been in operation for limited ship-repairs since August 1971 and was expected to be fully operative by October 1972 after the installation of a 40-ton L.L. crane. It will enable the shipyard to undertake repairs of ships of 57,000-70,000 DWT. The construction of a wet basin at an estimated cost of Rs 3 crores was sanctioned in January 1971. It will enable the shipyard to undertake above-water repairs of ships and provide increased fitting-out facility.

Garden Reach Workshops

The Garden Reach Workshops, which at present build tugs, barges, dredgers, coasters, etc., are expected to build two ocean-going merchant ships of 15,000-25,000 DWT per year after the completion of their expansion programme at an estimated cost of Rs 3 crores by the end of 1973.

Mazagon Dock

The Mazagon Dock, which caters mostly to the needs of Indian Navy, is also building two replacement passenger-*cum*-cargo vessels for the Shipping Corporation of India which are expected to be delivered in late 1973 and mid-1975 respectively. Its subsidiary, Goa Shipyard Limited, builds launches, tugs, etc., and also does ship-repairing.

Cochin Shipyard

The shipyard at Cochin is being constructed in technical collaboration with M/s Mitsubishi Heavy Industries, Tokyo (Japan). The scheme provides for a dock for building ships of 85,000 DWT and a repair dock for repairs of ships up to 1,00,000 DWT at an estimated outlay of Rs 45.42 crores. Preparatory work like acquisition of land, soil and land surveys, provision of water and electricity, project roads, reclamation, diversion and construction of National Highway-47, etc., is under way.

PORTS

India has eight major and 187 intermediate/minor ports scattered along her 5,690-km long coast-line.

Major Ports

The major ports are Bombay, Calcutta, Cochin, Madras, Visakhapatnam, Kandla, Paradip and Mormugao. The last three were developed into major ports after 1947. The ports of Mangalore (Mysore) and Tuticorin (Tamil Nadu) are also being developed as major ports.

The traffic handled by the major ports during 1970-71 amounted to 556 lakh tonnes comprising of 256 lakh tonnes of imports and 300 lakh tonnes of exports. Of the total exports, about 64 per cent constituted iron ore. The number of ships entered and their tonnage was 7,045 and 601 lakhs respectively. All the major ports are administered by statutory port trust boards. The Central Government exercises such control as is permissible under the relevant Port Trusts Acts.

Bombay is the biggest port of the country. About a quarter of the foreign trade of India passes through Bombay. Calcutta is the largest terminal port in South Asia. It commands the largest and the richest hinterland. Cochin is the finest natural harbour in the east. Kandla in Gujarat was developed as a major port to make up the loss of Karachi due to Partition and relieve the pressure on Bombay port. A free trade zone was created at the port on 7 March 1965 in a 320-acre area. Madras is an artificial port developed by man. Mormugao (Goa) was recognised as a major port on 15 December 1963. It held second position in total traffic tonnage handled during the year.

Paradip (Orissa) is situated in the Bay of Bengal, about 100 km from Cuttack. It is primarily for the exports of minerals, specially iron ore. Visakhapatnam is the third largest port and is situated between Calcutta and Madras. It is the only land-locked and protected Indian port. It is also the main centre of ship-building industry in India.

The traffic handled by and the financial results of the working of the major ports during 1970-71 are given in Table 19.8.

TABLE 19.8
TRAFFIC AND EARNINGS OF MAJOR PORTS

Port	Ships entered		Imports (lakh tonnes)	Exports (lakh tonnes)	Surplus (+) or deficit (—) in earnings (Rs lakhs)
	Number	Gross tonnage (lakh tonnes)			
Calcutta ..	1,070	81	33	27	(—)609
Bombay ..	2,440	170	110	34	(+) 27
Madras ..	960	90	37	32	(+)128
Mormugao ..	631	77	4	106	(+) 68
Cochin ..	1,026	78	34	14	(+) 34
Kandla ..	224	19	15	1	(—) 11
Visakhapatnam	610	73	23	64	(+)284
Paradip ..	84	13	—	22	(—) 3

The development of major ports is proceeding according to schedule. The approved physical programme after mid-term appraisal for the Fourth Plan is Rs 280 crores, out of which Rs 260 crores have been allocated for the Plan period and Rs 20 crores will spill over to the Fifth Plan. Out of Rs 260 crores, about Rs 85 crores will be met by the ports from their own resources and rest will be contributed by the Central Government. The plan for the development of major ports has been so drawn up as to cater to an anticipated traffic of about 7.7 crore tonnes in 1973-74.

A major part of the increase in traffic is on account of bulk commodities, such as petroleum products, iron ore and fertilizers (including raw materials). The more important schemes in progress which are proposed to be completed in the Fourth Plan period are the Haldia dock system and the Mangalore and Tuticorin harbour projects. Provision has been made for completion of the dock expansion scheme at Bombay and the oil dock in Madras outer harbour which were started in the Third Plan. The new major schemes include installation of modern ore handling facilities at Mormugao and Madras harbours, construction of an oil dock at Cochin, construction of a satellite port of Bombay at Nheva Sheva and an outer harbour at Visakhapatnam for handling deep draft carriers. The foundation-stone of the outer harbour at Visakhapatnam, to cost about Rs 50 crores, was laid by the Prime Minister, Smt. Indira Gandhi on 2 February 1972. When completed, Visakhapatnam will be the only port between Rotterdam and Tokyo providing alongside berthing facilities to ships of 1,00,000 DWT and above and will be the deepest in India. The project is expected to be completed by May 1974.

Intermediate/ Minor Ports

The Indian coastline is also served by a large number of intermediate/ minor ports which together handle coastal and overseas traffic. The responsibility for the development of such ports vests in the State Governments concerned. The Central Government gives loan assistance to the State Governments for this purpose. A Development

Adviser functioning within the Ministry of Shipping and Transport renders technical advice to the State Governments.

During the Fourth Plan, development schemes at various minor ports estimated to cost Rs 13.02 crores are being taken up as Centrally-sponsored schemes. Loans amounting to Rs 180 lakhs in 1970-71 were granted to the State Governments for the execution of these schemes.

National Harbour Board

The National Harbour Board was set up in August 1950 to advise the Central and State Governments on matters of general policy relating to management and development of ports with special attention to minor ports. It consists of representatives of the maritime States, the Ministries concerned, major port authorities and non-official members representing Parliament, shipping trade, industry and labour. The Board has been recently made more representative in character by the inclusion of a member of Parliament from each of the maritime States and prominent non-officials. A committee of the Board meets every year to screen and accord priorities to the needs for hydrographic survey.

Commission on Major Ports

The commission on major ports was set up in February 1968. It submitted its report in July 1970. The recommendations are under examination.

CIVIL AVIATION

Civil aviation in India has made rapid progress since Independence. During 1971, Indian aircraft flew (both on scheduled and non-scheduled services) about 6.30 crore km as against 2.16 crore km in 1947. They carried about 26.25 lakh passengers and 5.2 crore kg of cargo and mail in 1971 as compared to 3.1 lakh passengers and 45.6 lakh kg of cargo and mail in 1947.

Department of Civil Aviation

The Department of Civil Aviation operates the civil airports in India except the four international airports at Delhi, Calcutta, Bombay and Madras. It is also responsible for the air navigation services which include air traffic control and services associated with that control required to cover the approach landing and take off of aircraft.

The Department provides the required infrastructure for civil transport operations which include (1) construction, maintenance and management of air terminal buildings, runways, etc., of civil aerodromes; (2) provision of navigational aids and communication facilities to civil air transport; (3) enforcement of air transport regulations including safety requirements such as certification of air-worthiness of aircraft, licensing of pilots, navigators and other air crew and regulation of air traffic; and (4) enquiries into air accidents as also into incidents relating to the safety of aircraft.

International Airports Authority of India

The four international airports at Delhi, Calcutta, Bombay and Madras are managed by the International Airports Authority since 1 April 1972. The Authority was set up on 1 February 1972 for the operation, management, planning and development of these airports.

Aerodromes

There are four international airports and 81 other aerodromes in the country. These are: *International Airports*—Bombay (Santa Cruz), Calcutta (Dum Dum), Delhi (Palam) and Madras (Meenambakkam).

Other Aerodromes: Agartala, Ahmedabad, Amritsar, Begumpet, Delhi (Safdarjung), Gauhati, Jaipur, Lucknow, Nagpur, Patna, Tiruchirapalli, Aurangabad, Balurghat, Baroda, Behala, Belgaum, Bhavnagar, Bhuntar (Kulu), Bhopal, Bhubaneswar, Bhuj, Bombay (Juhu), Coimbatore, Gaya, Indore, Keshod, Kailashahar, Kamalpur, Kandla, Khajuraho, Khowai, Kota, Kumbhirgram, Madurai, Mangalore (Bajpe), Mohanbari, Nadirgul (Hyderabad) (Gliderdrome), North Lakhimpur (Lilabari), Pantnagar (Phoolbagh), Porbandar, Port Blair, Rajkot, Ranchi, Trivandrum, Tulihal (Imphal), Udaipur, Varanasi (Banaras), Vijayawada, Visakhapatnam, Akola, Bilaspur, Chakulia, Cooch-Behar, Cuddappah, Donakonda, Hadapsar (Poona) (Gliderdrome), Jhansi, Jharsuguda, Jabalpur, Kanpur (Civil), Khandwa, Kolhapur, Lalitpur, Malda, Muzaffarpur (Rewaghat), Mysore, Palanpur (Deesa), Panagarh, Panna, Pasighat, Rajahmundry, Raipur, Ramnad, Raxaul, Rupsi, Satna, Sheela, Sholapur, Tanjore, Vellore and Warangal.

The aerodromes at Ahmedabad, Patna, Bombay (Santa Cruz), Calcutta (Dum Dum), Delhi (Palam), Delhi (Safdarjung), Madras (Meenambakkam), Tiruchirapalli, Varanasi, Jodhpur (IAF), Bhuj, Port Blair and Amritsar have been declared customs aerodromes.

The air traffic control, aeronautical communication and radio navigation facilities at the international airports as well as at domestic aerodromes are provided by the Director-General of Civil Aviation.

Air Services

The scheduled air services are run by two public sector corporations, *viz.*, Indian Airlines and Air-India, both of which came into existence on 15 June 1953. The Indian Airlines Corporation provides air services within the country, linking up most of the principal centres, and also to neighbouring countries such as Burma, Ceylon and Nepal. On 31 March 1972, it had a fleet consisting of 7 Boeing-737, 7 Caravelles, 13 Viscounts, 11 Fokkers and 14 HS-748 aircraft. It operates more than 100 flights per day. During 1971-72, it transported 23,56,378 revenue passengers on its services and its aircraft flew over 17.74 crore revenue tonne kilometres.

Air-India provides an all jet service reaching out to 24 countries. At the end of March 1972, its fleet consisted of 9 Boeing-707 and two Boeing-747 aircraft (Jumbo Jets). During 1971-72, it carried 4,24,268 revenue passengers on its services and its fleet flew over 29.94 crore revenue tonne kilometres.

Air Transport Agreements

Air transport agreements have been concluded with Afghanistan, Australia, Belgium, Ceylon, Czechoslovakia, Egypt, Ethiopia, France, Hungary, Indonesia, Iraq, Italy, Japan, Lebanon, Malaysia, Nepal, Netherlands, Pakistan, Philippines, Singapore, Sweden, Switzerland, Thailand, West Germany, UK, USA and USSR.

Flying Clubs and Gliding Centres

There are twenty-five subsidized flying clubs with headquarters at New Delhi, Amritsar, Banasthali, Bangalore, Baroda, Bhubaneswar, Bombay, Calcutta, Coimbatore, Gauhati, Hissar, Hyderabad, Indore (with a branch at Bhopal), Jaipur, Jamshedpur, Jullundur Cantt., Karnal, Lucknow (with branches at Kanpur and Varanasi), Ludhiana, Madras, Nagpur, Patiala, Patna, Raipur and Trivandrum.

There is one Departmental gliding centre at Poona and 13 subsidized gliding clubs at Agra, Ahmedabad, Amritsar, Hissar, Jaipur, Jullundur Cantt., Kanpur, Nasik, New Delhi, Patiala, Patna, Pilani and Raipur.

Training Centres

The Civil Aviation Training Centre at Allahabad is run by the Central Government. It trains pilots, aerodrome officers, control officers, fire operators, radio operators and technicians.

Aircraft

On 31 December 1971, 690 aircraft held current certificates of registration and 260, current certificates of air-worthiness.

TOURISM

During 1971, 3,00,995 foreign tourists visited India as compared to 2,80,281 in 1970—an increase of 7.2 per cent. This increase was recorded despite the Bangladesh crisis, monetary crisis in the USA and other tourist generating countries and disruption of Indian Airlines services in early 1971. The Government have set a target of 4,00,000 tourists for 1973.

The foreign exchange earnings from tourism amounted to Rs 40.38 crores in 1971—an increase of 6.2 per cent over the preceding year. A provision of Rs 25 crores has been made for tourism in the Fourth Plan.

India's potential for tourism is great. It is a country which has plenty of masterpieces of ancient culture and architecture, a country which abounds in natural beauty, in the exotic and the mysterious and at the same time it has a gigantic industrial complex and provides comfort and luxuries of modern communication, transport and hotels. To attract more tourists, attempts are being made to strengthen the infrastructure at home and to improve India's tourism image abroad.

The Department of Tourism has a chain of regional offices at home and a number of offices abroad. Regional offices are functioning in Bombay, Calcutta, Delhi and Madras with sub-offices at Agra, Aurangabad, Cochin, Jaipur, Jammu, Khajuraho and Varanasi. These offices work in close collaboration with the State Governments, travel agents, hoteliers and carriers. Abroad, India has tourist offices in New York, San Francisco, Chicago, Mexico, Toronto, London, Sydney, Paris, Tokyo, Frankfurt, Geneva, Brussels, Stockholm, Milan and Singapore (opened in October 1971).

The tourist offices at Paris, Frankfurt, Geneva, Brussels, Stockholm and Milan are functioning under a scheme of closer co-ordination between the Department of Tourism and Air-India for promotion of tourist traffic from the continent of Europe. Under this scheme the entire tourist publicity in the area has been entrusted to Air-India since July 1968. A regional office has been set up at Geneva to regulate the tourist publicity programme for promotion of tourist traffic from Europe. The tourist office in London has also been brought under this scheme since April 1970.

The tourist offices at New York, San Francisco, Chicago, Mexico and Toronto have been brought under this scheme from July 1971 to promote tourist traffic from America and Canada. The tourist office at New York is functioning as the regional office to regulate the publicity programme for the promotion of tourist traffic from this area.

Hotels and Supplementary Accommodation

The Government of India offer various incentives for new hotel projects in the form of tax and other fiscal reliefs. The needs of hotel projects for building materials, communications, import of essential equipment and provision, etc., are also met on a priority basis.

A sum of Rs 11.5 crores has been provided for assistance to hotel entrepreneurs during the Fourth Plan period.

At present there are 169 hotels, with a total capacity of 10,026 rooms, on the approved list of the Department of Tourism. It is estimated that by the end of 1973, another 9,071 rooms will be needed. To meet the additional requirement, 81 new hotel projects have been approved in the private sector and the completion of some of these will provide about 2,324 rooms by the end of 1973. In the public sector, the India Tourism Development Corporation has decided to construct hotels at Calcutta, Gulmarg, Kovalam and Aurangabad. Construction of a hotel at Panaji (Goa) is also under examination. Air-India also plans to set up two hotels in Bombay.

Supplementary accommodation is being put up by the Department of Tourism in the form of youth hostels, forest lodges, reception centres, tourist bungalows, camping sites, etc. It has been decided to set up youth hostels at 15 places, tourist reception centres at four places and tourist bungalows at five places. Rest houses are also being constructed at seven wild life sanctuaries/national parks.

Relaxations in Tourist Regulations

To promote tourist traffic to India, regulations relating to police registration, currency, exchange control, customs and liquor and temporary landing permits have been relaxed. The validity of landing permits has been increased from seven to 21 days. Tourists from most of the countries can now come to India without a visa. A high level committee has been formed to ascertain the possibilities of further simplification of formalities. Concessional tickets are offered by the railways for round trip journeys and circular tours. Special concessions are given to students and pilgrims. During summer there are hill station concessions.

At present, there are 104 officially recognised travel agencies (51 travel agencies and 53 branch offices of the travel agencies), 26 shikar (big game) outfitters, 118 approved tourist car operators spread over 27 tourist centres and more than 300 shops at important tourist centres to serve the tourists. The services of an increasing number of educated, specially trained and approved travel guides are also available.

Tourist Publicity

The Department undertakes extensive publicity in the prime tourist markets of the world through 15 of its tourist offices located abroad. One of the significant developments in this field recently has been a change of emphasis towards a market-oriented strategy. Promotion is undertaken through advertising, allied publicity and public relations campaigns, organising travel seminars and 'India Nights', exhibition of films, displays, etc. A variety of tourist publicity literature such as colourful folders, posters, guide books, pamphlets, etc., is produced in English, French, German, Italian, Spanish, Japanese, etc., and distributed through tourist offices in India and abroad. Publicity is also obtained by extending hospitality to foreign journalists, travel writers, photographers, TV film producers and travel agents.

India Tourism Development Corporation

The main activities of the India Tourism Development Corporation are construction and management of hotels/motels/travellers' lodges, provision of transport facilities for tourists, production of tourist publicity and promotional material, provision of entertainment and management of the duty free shops at the international airports.

Presently, the Corporation has under its management 8 hotels—5 in Delhi, and one each at Bangalore, Kovalam and Udaipur. In addition, the Corporation is running 27 travellers' lodges/restaurants at different places. The Corporation has also set up transport units at 15 centres, and has mounted sound and light shows at Red Fort, Delhi and at Sabarmati, Ahmedabad. Besides, the projects for the construction of hotels at Kovalam, Dum Dum, Aurangabad and Gulmarg and motels at Jammu and Varanasi are at various stages of execution.

METEOROLOGY

Meteorological and weather services are provided by the India Meteorological Department with its headquarters at New Delhi and five regional offices at Bombay, Calcutta, Madras, Nagpur and New Delhi. It issues warnings against heavy rainfall, strong winds and cyclonic weather for the general public and a number of private and public organisations including aviation, defence services, shipping, ports and fishing craft, mountaineering expeditions and agriculturists. Weather bulletins containing forecasts for the next 24 to 36 hours with further outlook are broadcast over All India Radio. A large number of industries, government organisations and public and private sector undertakings, who have registered their requirements with the Department, receive special warnings by telegram and telephone. Forecasting centres function at important aerodromes and for shipping and public at the regional centres. Under a new scheme, State Meteorological Centres have been established at Bangalore, Gauhati, Jaipur, Lucknow and Trivandrum. Similar centres will be established soon at the capitals of other important States of India.

Other directorates of the Department deal with agricultural meteorology, meteorological training, Indian Ocean and Southern Hemisphere Analysis Centre, instruments, hydro-meteorology, aviation services, the Northern Hemisphere Analysis Centre, radio-meteorology, satellite meteorology and meteorological telecommunications.

As a part of India's international co-operation in the field of meteorology, the Department has established Regional Meteorological Centre (RMC) and Regional Tele-communication Hub (RTH) at New Delhi as a part of the global organisation of the World Weather Watch (WWW). Meteorological data are exchanged with many countries through high-speed telecommunication channels and analysis and forecast charts are disseminated on radio facsimile for the use of other meteorological centres in India and abroad. RTH is being equipped with a meteorological telecommunication computer worth more than Rs 1 crore to handle about 50 lakh groups containing meteorological information per day.

At Bombay, Calcutta, Madras, New Delhi and Poona, the Department maintains Automatic Picture Taking (APT) stations which receive pictures of clouds over various parts of land and sea televised by weather satellites. The data received from the satellites are valuable for forecasting, especially for issuing cyclone warnings to ports and shipping.

For improving the cyclone warnings, the Department has established a cyclone-warning radar station at Visakhapatnam. Seven more such stations have been planned for vulnerable areas of the Indian coastline.

The Department has its own training centre at Poona, which is also used by defence services and foreign meteorological bodies.

A Project Scientist Unit functions at Trivandrum for liaison with the Thumba Equatorial Rocket Launching Station regarding the meteorological sounding of the upper atmosphere with rockets. A special unit functions at Calcutta for the compilation and publication of the Indian Nautical Almanac. The unit also publishes the Rashtriya Panchang in various Indian lauguages.

At present the Department's observational organisation consists of 484 surface, 317 hydro-meteorological, 54 pilot balloon, 19 radio-sonde, 23 radio-wind, 30 radiation and 156 agricultural meteorological observatories, 10 storm-detecting radar stations, one cyclone-warning radar station, 5 ozone and 5 weather-satellite monitoring stations.

The Seismological Division controls the Central Seismological Observatory at Shillong and 21 other stations for recording earthquakes. The Division carries out research on earthquakes and earth's crust and evaluates seismic risk in different parts of the country for planning hydro-electric reservoirs, etc.

20 COMMUNICATIONS

India has made remarkable progress in communication services since Independence. The number of post offices, which was a little over 36,000 on 1 April 1951, had increased to 1,11,682 by 1 April 1972. More than one lakh of these offices were in rural areas. The number of telegraph offices has nearly doubled since Independence while the number of telephones has multiplied eight times, from 1,68,000 to 13,00,000. The Subscriber Trunk Dialling service, which did not exist until 1960, is now in operation over 44 routes. The overseas communication system connects India with almost all the countries of the world through teleprinter, radio telephone, telegraph and international telex system.

The Posts and Telegraphs Board of the Ministry of Communications, which operates the postal and telecommunication services, is next to the Railways the largest employer in the country. The number of persons (including extra-departmental and industrial workers) employed by the Board on 31 March 1971 was 5·9 lakhs and the capital outlay (outside the revenue account) was Rs 468.9 crores.

The Department of Posts and Telegraphs operates through fifteen territorial units called P & T Circles, one functional unit for Delhi and twelve telephone districts at Ahmedabad, Bangalore, Bombay, Calcutta, Delhi, Hyderabad, Jaipur, Kanpur, Madras, Nagpur, Patna and Poona. In addition, it has units for specific purposes such as telecommunications and training, electrification, workshops and stores. It also discharges certain agency functions like collecting wireless licence fee, running savings banks, issuing national savings certificates and postal life insurance policies and selling the units of the Unit Trust of India.

POSTAL SERVICES

The history of modern postal system in the country may be traced back to 1837 when postal services were thrown open to the public. The first postage stamp was issued in Karachi in 1852 which was valid only in Sind. The Postal Department was set up in 1854 when nearly 700 post offices were already functioning in the country. The money order system was introduced in 1880. Five years later, Postal Savings Bank also started functioning. The Railway Mail Service was started in 1907.

The number of post offices at the end of March 1971 was 1,09,059 including 98,835 in rural areas. There were 126 'Night Post Offices' which function for longer duration during week days and are open on all days including Sundays as well as other holidays. On an average, each post office served 5,019 people, and covered an area of 29.3 sq. km based on 1971 provisional census figures. The number of letter boxes was 2,19,025 including 1,09,854 at places other than post office premises. Delivery of mail was being made daily to 3,46,550 villages in 1971 as compared to 3,40,144 villages a year ago. The number of postal articles sent during 1970-71 was 645.74 crores including 18.28 crore registered articles. Money orders numbering 9.45 crores of the value of Rs 610.26 crores were handled by the post offices. The postal revenue exceeded Rs 110.5 crores. The surface mail routes covered over 7 lakh kilometres.

Air Mail All-up Scheme

An inland night air mail service links up the principal cities of India. Under the "All-up Scheme", all inland letters, letter-cards, post cards and money orders are normally carried by air without any air surcharge.

Service with Foreign Countries

India has an airmail and an air parcel service with over a hundred countries of the world. Important statistics relating to the postal services are given in Table 20. 1.

TABLE 20.1
POSTAL STATISTICS

	1950–51	1960–61	1965–66	1969–70	1970–71
Number of post offices					
Urban	5,284	7,326	8,913	9,891	10,224
Rural	30,810	69,513	88,023	95,064	98,835
Total:	36,094	76,839	96,936	1,04,955	1,09,059
Postal articles (crores)	227.00*	402.9*	646.4*	617.62*	645.74*
Regd. articles (crores)	7.65	11.60	16.28	18.11	18.28
Insured articles (lakhs)	37.23	41.00	55.00	61.95	64.00
Postal revenue (Rs crores)	21.03	40.78	66.00	97.81	110.54
Money orders (crores)	5.10	7.65	9.15	9.48	9.45
Value of money orders (Rs crores)	195.00	334.25	477.43	591.50	610.26

* Excluding money orders.

Postal Savings Bank

The Post Office Savings Bank attracts the largest number of depositors. Their number was 2.06 crores at the close of March 1971. On 31 March 1971 Savings Bank facilities were available in 441 Head Post Offices, 17,928 Sub Post Offices and 81,938 Branch Post Offices. Growth of Post Office Savings Bank business in the last decade is shown in Table 20.2.

TABLE 20.2
GROWTH OF POST OFFICE SAVINGS BANK BUSINESS

As on 31 March	Savings bank		Cumulative time deposit		Savings certificates
	No. of depositors (lakhs)	Balance (Rs crores)	No. of depositors (lakhs)	Balance (Rs crores)	Balance (Rs crores)
1961	92	431.40	3.98	2.64	377.20
1967	151	701.60	36.31	49.48	788.76
1968	169	760.00	41.24	61.69	811.28
1969	184	812.00	46.40	78.70	885.31
1970	197	890.00	51.18	98.31	921.89
1971	206	974.00	51.30	116.54	888.49

Postal Life Insurance

The number of postal life insurance policies in force on 31 March 1971 was 2,54,252 and the sum assured was over Rs 75 crores. Proposals relating to 22,282 policies for Rs 8,94,90,200 were accepted during April-December 1971.

A new scheme of postal life insurance came into force on 1 April 1972. It provides that a man below 28 years, under certain conditions, would be eligible for insurance without medical examination. The sum assured should not exceed Rs 3,500 or 24 times his monthly emoluments.

Commemorative Stamps

The Department issues special stamps to mark special occasions or honour celebrated personalities. During 1971-72, 13 commemorative stamps were issued. The personalities honoured, among others, were Dada Saheb Phalke (centenary year) and C. V. Raman (first death anniversary). Some other occasions when stamps were issued were National Savings Scheme (coinciding with World Thrift Day), UNESCO (25th anniversary), Children's Day 1971 and Cricket Victories 1971.

Postal Links with Bangladesh

The first exchange of postal mail between India and Bangladesh took place on 21 December 1971. Inland postal rates apply on this mail service. India also assisted in the restoration of telecommunication links between different cities of Bangladesh.

TELEGRAPH SERVICES

Indian telegraphs is one of the oldest Government-owned public utility in the world. The first Government telegraph line was opened in 1851 between Calcutta and Diamond Harbour. A special feature of the post-Independence period has been the introduction of telegraph services in Hindi and other Indian languages from 1 June 1949.

There were over 15,460 telegraph offices (excluding postal receiving offices and licensed telegraph offices) at the end of March 1971. Over 5 crore telegrams were booked during 1970-71, the total telegraph revenue being a little over Rs 27.47 crores. The corresponding figures for 1950-51 were 8,205 telegraph offices, 2.79 crore telegrams and Rs 5.9 crores revenue.

Phonogram Service

The phonogram service for sending and receiving telegrams by telephone had been introduced at 2,110 stations up to 31 March 1971. Over 115 lakh messages were booked and over 19 lakh messages were delivered on telephone during 1970-71.

Telegrams in Hindi and Other Languages

The Hindi service has been progressively expanding. At the end of March 1971 telegrams could be booked in Hindi or any other Indian language, provided they were written in Devanagari script, from 3,875 telegraph offices. The special facilities available in English telegraph system are also available in Hindi telegraph system.

Teleprinters

The number of teleprinters in use on 31 March 1971 was 17,248 including 675 teleprinters with Devanagari key board as against 13,783 including 600 Hindi teleprinters a year ago.

The Hindustan Teleprinters Limited, Madras, established in 1960, manufactured 4,488 units of teleprinters in Roman and Devanagari scripts during 1971. Teleprinter machines and ancillaries worth Rs 9.30 lakhs were exported during the year to Kuwait, Ceylon, Singapore, Lebanon, Nepal, Jordan and Iran.

Telex Service

The National Telex service was inaugurated on 24 June 1963. The first Devanagari telex was inaugurated in New Delhi on 8 July 1969. With the commissioning of teleprinter exchanges at important cities, printed messages can be sent and received directly from one subscriber to another in any part of the country. Telex service was available between 40 large cities having 9,230 telex connections at the end of May 1972.

TELEPHONE SERVICES

India had a 50-line telephone exchange in Calcutta as early as 1881, *i.e.*, only five years after the telephone was invented by Graham Bell. The first telephone exchange with automatic lines was installed at Simla in 1913. It was after Independence, however, that telephone services made rapid progress.

The number of telephone exchanges has increased by more than

15 times and the number of telephones by more than 12 times since Independence as shown in Table 20.3.

TABLE 20.3 TELEPHONE STATISTICS

	1947	1951*	1961*	1969*	1971*	1972*
No. of telephone exchanges	271	540	1,374	3,432	3,967	4,205
No. of telephones (in lakhs)	1.15	1.68	4.63	11.20	13.00	14.00 (appx.)

*As on 1 April.

The number of trunk calls made also increased considerably, by over 12 times during the last 20 years, from 71 lakhs in 1950-51 to 859 lakhs in 1970-71. The telephone revenue during the same period increased from Rs 9 crores to Rs 131.7 crores. The number of long-distance public call offices has also risen by nearly 18 times, *i.e.*, from 230 at the time of Independence to 4,168 at the end of March 1972.

Subscribers Trunk Dialling Service

Direct trunk dialling by subscribers, introduced first between Kanpur and Lucknow in 1960, is now in operation between 47 pairs of cities. The number of effective calls on this service was over 3.5 crores in 1970-71.

On Demand Trunk Service

A new service called "On Demand Trunk Service" was introduced for the first time on Bombay-Bangalore route on 29 May 1971. Since then the service has been extended to 68 trunk routes in the country.

Facsimile Service

Facsimile service was introduced in 1969 for an important newspaper for the first time in the country, at Madras, facilitating simultaneous printing of the paper at Madras and Coimbatore. Parties desirous of having facsimile transmission service can now be provided non-exchange lines/private wires on rental basis over which they may operate their own equipment.

Ship to Shore Service

Under this service subscribers can have telephonic contacts with ships at sea within 750 km. This service is available at Bombay, Calcutta and Madras.

Own Your Telephone Scheme

The scheme, introduced in December 1949, was extended to all the telephone systems in the country from 10 August 1971. About 2,16,800 telephones have been provided under this scheme yielding a revenue of Rs 61 crores till 31 March 1972.

Directories in Hindi

In accordance with the policy of the Government, telephone directories in Hindi are being issued for Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan Circles, Delhi Telephone District, Bombay Telephone District, Hyderabad Telephone District and Punjab Circle (comprising Haryana, Himachal Pradesh and the Union Territory of Chandigarh).

Contrary to the earlier practice, the Government has now decided that the telephone directories in regional languages (other than in Hindi) will be published departmentally, if there is a reasonable demand for them.

Phone Link with Dacca

Dacca was connected by telephone to New Delhi and Calcutta on 19 December 1971. Earlier Akhaura and Jessore in Bangladesh were also connected by telephone to India.

Telephone Manufacture

The Indian Telephone Industries Limited, Bangalore, manufactured 2,13,300 telephones during 1971 besides telephone exchange lines, long distance transmission equipment, electronic measuring instruments, etc. The total sales of the ITI during 1971 amounted to Rs 29.31 crores. The ITI exported telecommunication equipment worth Rs 33.70 lakhs to Australia, Afghanistan, Belgium, Ceylon, Greece, Kenya, Kuwait, Malaysia, Nepal, Nigeria, Singapore, South Vietnam, Uganda, UK and Zambia during the year. To meet the growing demand for telecommunication equipment, the ITI is setting up two new factories at Naini, near Allahabad. One of them will manufacture long distance transmission equipment and the other will manufacture telephone instruments and allied items. The transmission factory commenced production in 1971.

OVERSEAS COMMUNICATIONS SERVICE

The Overseas Communications Service is responsible for the establishment, maintenance and operation of India's external telecommunication services. The administrative head of the service is the Director-General with headquarters at Bombay.

The service operates through four international gateway centres located in Bombay, Calcutta, Madras and New Delhi and provides overseas telegraph, telephone, telex, photo-telegraph and private-wire teleprinter lease services. It also provides broadcast transmission and reception facilities for the Government and the press agencies.

Satellite Communication System

The first Earth Station of the OCS at Arvi near Poona with a huge 97 ft. antenna commenced operation with the Indian Ocean Satellite on 26 February 1971. Following this, there has been a rapid build-up of satellite channels in all directions linking India with various countries of the world which are accessible directly *via* the Indian Ocean Satellite or by through-put extensions of satellite channel *via* cable links. The OCS is operating satellite or satellite/cable composite circuits to the following countries/regions of the world: UK, USA, Japan, Australia, Hongkong, Malaysia, Singapore, Canada, Bahrain, Kuwait, East Africa, Federal Republic of Germany, France, Italy, Switzerland, Austria and Netherlands.

The Arvi Station on its first anniversary was renamed Vikram Earth Station in memory of the late Dr Vikram A. Sarabhai.

High Frequency Radio System

High frequency radio links continue to serve the following countries:

Telephone: Aden, Burma, Ceylon, Ethiopia, Iran, Poland, Saudi Arabia, Egypt, USSR, South Vietnam, Thailand, Afghanistan, China, Indonesia and Nigeria.

Telegraph: Aden, Burma, France, Iran, Hongkong, Kuwait, Singapore, South Vietnam, Egypt, North Vietnam, Philippines, Indonesia, Nigeria, Thailand, Afghanistan, China, Czechoslovakia, Rumania, USSR, Yugoslavia and Poland.

Telex: Ceylon, Hongkong, Philippines and USSR.

India-Singapore submarine telegraph cable link is also in operation.

Switched Services

Switching through these direct connections with the international system, telegraph and telephone services are available practically with all parts of the world. International telex services are available to 155 foreign points. Radio-photo services are available with 53 foreign points. Five telex services and 25 radio-photo services were added during 1971-72.

Leased Teleprinter Channel Service

The OCS leases teleprinter channels for exclusive use of private subscribers. A large number of international airline companies, Government departments, foreign embassies and international business houses are using this facility. At present there are 44 leased private wire teleprinter channels in operation.

Programme Transmission Service

Facilities are provided on the overseas telephone systems for the transmission and reception of "programmes" consisting of spoken despatches by representatives and correspondents of broadcasting organisations for use on their broadcast networks.

Press Broadcast Service

The OCS provides multi-address teleprinter news broadcast transmissions on behalf of the Ministry of External Affairs simultaneously to 56 Indian Consular posts around the world. Point-to-point telegraph news transmissions are also provided to the Press Trust of India from Bombay.

The OCS also carries out reception of foreign radio-telegraph press broadcasts on behalf of the press agencies. Reception of foreign broadcasts is at present handled on behalf of two Indian news agencies.

WIRELESS PLANNING AND CO-ORDINATION

The Wireless Planning and Co-ordination Wing of the Ministry of Communications is the dealing agency of the Government on matters concerning the International Telecommunication Union, Geneva, a specialised UN agency. It also functions as the national radio regulatory authority for all radio usages in the country and in that capacity assigns radio frequencies and issues operating licences to all official and non-official wireless users. Cases of radio interference are investigated and solved through national and, if necessary, through international co-ordination. A network of monitoring stations has been set up for frequency management and implementation of radio regulations. Eleven such stations are functioning at Ahmedabad, Ajmer, Bombay, Calcutta, Delhi, Gorakhpur, Hyderabad, Madras, Nagpur, Shillong and Srinagar.

21 LABOUR

In the organised sector of India's economy, the largest number of workers are employed in factories. In 1970, the estimated average daily employment in working factories, for which figures are available, stood at 49.38 lakhs (provisional).

(5v.C.)

Table 21.1 gives the State-wise break-up of average daily employment figures in factories covered by the Factories Act 1948, for 1961 and from 1966 to 1970, on the basis of the returns submitted by them.

TABLE 21.1
EMPLOYMENT IN FACTORIES

(*in thousands*)

State/Union Territory	Estimated average (daily) number of workers employed					
	1961	1966	1967	1968	1969	1970*
Andhra Pradesh	228	255	266	282	258	259
Assam	80	81	82	79	80	78
Bihar	192	238	252	258	262	279
Gujarat	361	413	416	405	415	438
Haryana	—	72	76	77	82	89
Himachal Pradesh	2	6	7	8	10	10(E)
Jammu & Kashmir	NA	9	9	9	9	9(E)
Kerala	172	200	204	206	205	205(E)
Madhya Pradesh	169	212	209	224	213	228
Maharashtra	827	937	942	938	978	1,003
Mysore	178	240	246	252	260	260(E)
Orissa	38	68	67	75	71	75
Punjab	132	104	107	105	106	117
Rajasthan	57	77	79	81	83	83(E)
Tamil Nadu	330	405	418	411	421	421(E)
Uttar Pradesh	338	415	405	384	399	419
West Bengal	739	873	865	850	823	840
Andaman & Nicobar Islands	2	3	3	3	3	3
Chandigarh	—	—	—	4	5	5(E)
Delhi	72	88	88	88	92	94
Goa, Daman & Diu	—	4	5	6	6	6(E)
Manipur	@	1	1	1	1	1(E)
Pondicherry	—	—	10	10	10	12
Tripura	2	2	3	3	2	2(E)

* Provisional.
(E) Estimated by repeating 1969 figures as figures for 1970 were not received.
@ Less than 500.

The average daily number of workers employed in all mines in 1970 was 6,38,223 (2,62,414 underground, 1,95,264 open-cast working and 1,80,545 surface). The corresponding figures in respect of coal mines covered by the Mines Act were 3,91,538 (2,35,400 underground, 45,551 open-cast working and 1,10,587 surface).

NATIONAL EMPLOYMENT SERVICE

The National Employment Service, started in 1945, consists of a network of employment exchanges manned by trained personnel. The exchanges render assistance to all employment seekers, specially to physically handicapped, ex-servicemen, scheduled castes/tribes, university alumni, professional and executive personnel. The Employment Service also carries out other functions, such as collection and dissemination of employment market information and conducting surveys and studies in the field of employment and occupational research. These and other studies throw up information which helps in policy formulation on some aspects of manpower.

The Employment Exchanges (Compulsory Notification of Vacancies) Act 1959 makes it obligatory for employers employing 25 or more workers to notify their vacancies to the employment exchange and also furnish periodical information.

At the end of 1971, there were 488 exchanges (including 51 University Employment Information and Guidance Bureaux) in the country. Table 21.2 gives figures relating to the activities of the exchanges.

TABLE 21.2
EMPLOYMENT EXCHANGES AND APPLICANTS

Year	No. of exchanges	No. of registrations	No. of applicants placed in employment	No. of applicants on Live Register	Monthly average no. of employees using the exchanges	No. of vacancies notified
1956	143	16,69,985	1,89,855	7,58,503	5,346	2,96,618
1961	325	32,30,314	4,04,707	18,32,703	10,397	7,08,379
1962	342	38,44,902	4,58,085	23,79,530	11,472	7,90,445
1963	353	41,51,781	5,36,277	25,18,463	12,475	9,08,980
1964	365	38,31,904	5,44,818	24,92,874	13,742	9,16,572
1965	376	39,57,605	5,70,191	25,85,473	13,938	9,46,082
1966	396	38,71,162	5,07,342	26,22,460	12,908	8,52,467
1967	399	39,11,748	4,30,588	27,40,435	11,421	6,69,039
1968	405	40,39,516	4,24,227	30,11,642	11,840	7,14,006
1969	416	42,00,694	4,32,182	34,23,855	11 906	7,21,566
1970	429	45,15,934	4,47,195	40,68,554	12,595	7,44,414
1971*	437	51,29,857	5,06,973	50,99,919	12,910	8,13,603
1972* (Jan.-June)	444	26,34,241	2,59,227	56,87,978	12,867	4,18,452

* Includes 15 professional and executive employment offices.

The day-to-day administrative control over the employment exchanges was transferred to the State Governments from November 1956. From April 1969, the States also assumed financial control over the manpower and employment schemes. The Central Government's responsibility is limited to policy-making, co-ordination of procedure and standards, and the development of various programmes on an all-India basis.

Several schemes, such as (i) the collection of employment market information; (ii) occupational research and analysis; and (iii) vocational guidance and employment counselling, have been implemented to improve the quality of service rendered by the exchanges.

Vocational guidance and employment counselling services are rendered to youth (applicants without any work experience and adults with specific work experience) at the employment exchanges and University Employment Information and Guidance Bureaux. At present, Vocational Guidance Units exist at 216 employment exchanges and University Employment Information and Guidance Bureaux at 51 universities of the country. Vocational guidance services rendered at these field units pertain to continuous assistance to individuals in planning their vocational careers and solving their vocational and employment problems. In rendering these services, two sets of factors are taken into account, namely, (a) factors relating to individual's plans—his educational qualifications, aptitudes, interests, work preferences, attitudes, temperament and other personality characteristics, and (b) factors relating to the world of work—job opportunities, job requirements and employment market conditions including present status and future trends.

In order to divert the educated youth to channels of gainful employment, vocational guidance and career advising programmes of the Directorate-General of Employment and Training have been expanded and streamlined. A Career Study Centre at the Central Institute for Research and Training in Employment Service has been set up to develop career literature which may be used for the occupational orientation of the youth and other guidance seekers and an Evaluation and Implementation Unit has been set up at the D.G.E. & T. to strengthen the activities of vocational guidance and career counselling.

In order to promote efficiency of craftsmen-trainees at the Industrial Training Institutes and to reduce the wastage of human and material resources, D.G.E. & T. have developed aptitude tests which have been used for selection of craftsmen-trainees in engineering trades on a continuous basis since 1963. This programme helps to determine scientifically the suitability of applicants for undergoing training in different engineering trades. During 1971, the aptitude tests were conducted in 15 engineering trades for selection of trainees in 90 ITIs in 12 States. The total number of candidates listed was 74,313. The Aptitude Testing Programme has also been extended to industries in different regions for selecting suitable candidates as apprentices under the Apprentices Act 1961. Twelve industries have so far used the D.G.E. & T. aptitude tests for selection of apprentices in their organisations. There is also a scheme for training of training and personnel officers for aptitude test administration and organisation of testing programme on a large scale. So far, three such training seminars have been conducted for the industries.

Two Vocational Rehabilitation Centres were set up in June 1968 at Hyderabad and Bombay for the vocational evaluation and adjustment training of the physically handicapped persons so as to achieve their early rehabilitation in society. Two more centres were opened in Delhi and Jabalpur in December 1971. From their inception up to December 1971, the centres had admitted 1,626 physically handicapped clients, out of whom 634 have been placed in employment. Apart from the Vocational Rehabilitation Centres, there are eleven special employment exchanges located at Bombay, Delhi, Madras, Hyderabad, Calcutta, Ahmedabad, Bangalore, Chandigarh, Kanpur, Trivandrum and Jabalpur, which assist the physically handicapped persons in obtaining suitable employment. Till December 1971, the special exchanges had registered 25,356 physically handicapped applicants, out of whom 8,911 had been placed in employment.

The Central Institute for Research and Training in Employment Service undertakes programmes of research in operational activities, working procedures and allied problems of employment exchanges and of imparting professional training to employment officers deputed by the States. During 1970, the Institute conducted eight training courses for employment officers. Two officers from Egypt and one from Uganda were also trained in the Institute.

TRAINING

In an endeavour to build up the career of young persons in their adolescence, efforts are made by the D.G.E. & T. to evolve various training programmes. These programmes are formulated within the national framework as far as possible and also in collaboration with foreign countries. They aim at imparting occupational skills to young people to make them employable.

Craftsmen's Training

Industrial training institutes have been set up all over the country to impart skills in 54 trades to young men and women in the age group of 15 to 25. To make the training more effective, workshop conditions are reproduced in these institutes. At present, there are 354 ITIs in the country which provide training facilities to 1,54,510 craftsmen. At the end of the course, examinations are held under the auspices of the National Council for Training in Vocational Trades and successful candidates are awarded the National Trade Certificates. The duration of the courses varies from 1 to 2 years in the case of engineering trades, but it is one year for all non-engineering trades.

Besides 54 trades, the State Governments/Union Territories have also introduced some new trades on the recommendations of the respective State/Union Territory Councils for Training in Vocational Trades to meet the requirements of the new industries established in their States. The responsibility of conducting the examinations and issue of certificates in such cases rests with the respective State/Union Territory Councils. If the requirement for these trades continues for a period of 5 years, the matter is taken to the National Council for Training in Vocational Trades for its approval at the national level.

The educational qualifications for admission in the industrial training institutes in most of the trades under the Craftsmen's Training Scheme is "8th class or 2 classes below the matriculation or its equivalent". For some trades like electronics, radio and TV, electricians, draftsmen (mechanical), surveyors, etc., the minimum qualification is a pass in the matriculation or its equivalent with mathematics and science. The training in industrial training institutes is given free.

The All India Trade Test is conducted under the aegis of the National Council for Training in Vocational Trades in July every year in the engineering and non-engineering trades.

Advanced Training to Craftsmen

The Advanced Training Institute for Craftsmen was set up at Madras in November 1971 with the assistance of the United Nations Development Programme. The institute conducts full-time and part-time advanced training courses for craftsmen. Specialised training programmes include tool design, tool-making, die-making, fitting, heat treatment, welding and machine tool maintenance.

Craft Instructor's Training

Seven central training institutes at Calcutta, Bombay, Kanpur, Madras, Hyderabad, Ludhiana and New Delhi train craft instructors required by the ITIs as well as by industries. The institute at New Delhi is exclusively meant for women instructors. Training is imparted in 20 engineering and 3 non-engineering trades. The courses conducted are: one-year regular instructors' course; one-and-a-half years' course for retraining instructors from one trade to another; and six-month refresher course for ITI instructors. The institutes have 1,198 seats for the trainees.

Foremen's Training

The institute to train foremen was set up at Bangalore in 1971 with the help of the Federal Republic of Germany. It seeks to bridge the gap between the skilled workers and management by imparting training in managerial skills and trades to foremen. The training programmes prepare the foremen for accepting more shop-floor responsibility and make them productivity conscious.

Apprenticeship Training Scheme

The Apprentices Act 1961 makes it obligatory on the part of employers in specified industries to engage apprentices. The training consists of basic training, followed by on-the-job or shop-floor training with related instructions according to training standards prescribed by the Government in consultation with the Central Apprenticeship Council.

So far, 201 industries have been specified and 56 trades have been designated under the Act. About 47,650 apprentices were undergoing training at the end of September 1971 in 4,625 establishments both in the public and private sectors. More industries and trades will be covered gradually to meet the growing and changing demand for skilled workers in other industries.

Part-time Training to Industrial Workers

Along with the expansion of facilities for the training of craftsmen in institutes and through the apprenticeship programme, it was considered necessary to organise evening classes to improve the theoretical knowledge and practical skills of existing industrial workers who enter the industry without any systematic training.

Industrial workers who possess two years' workshop experience in a particular trade and are sponsored by their employers are eligible for admission to this course. No age limit has been prescribed. The scheme for part-time evening classes had been implemented in 39 centres having 4,282 seating capacity in various engineering trades by the end of 1971. Under this scheme, the course contents in particular trades are divided into unit courses of three months' duration. These units cover the subjects progressively, suitably supplemented with other subjects like Trade Practical, Workshop-Arithmetic and Science Engineering Drawing. The classes are held in the evening thrice a week for three hours each day in ITIs/MTIs, polytechnics and other establishments in the areas of industrial concentration. The period of training is 2 years and the workers are charged a fee of Rs 2 per month.

Training in Industrial Relations and Labour Laws

The Indian Institute of Labour Studies was set up in New Delhi in 1964 to impart in-service training in industrial relations, personnel management and techniques of enforcement of labour laws to the officers deputed by the Central Industrial Relations Machinery, State Governments and Union Territories, public sector undertakings and also to the nominees of the Governments of Asian and African countries under the Technical Co-operation Scheme of the Colombo Plan, Special Commonwealth African Assistance Plan and Indian Technical & Economic Co-operation Programme.

Vocational Training Research

The vocational training programmes in India have depended to a certain extent on the experience gained in other countries. The Central Staff Training and Research Institute was set up at Calcutta in May 1970 with the collaboration of Federal Republic of Germany for developing indigenous training techniques. The basic functions of the Institute are:

(i) to conduct vocational training research for ascertaining qualitative requirements and standards of existing as well as future skills and preparation of regulations governing vocational training;

(ii) development of teaching and demonstration materials and preparation of standard plans for the implementation of training programmes;

(iii) provision of supplementary training to the heads and senior staff of training workshops in industry, industrial training institutes, central training institutes, and officers of the Government of India and State Governments holding key positions in vocational training; and

(iv) rendering advisory services to the Indian industry on all matters relating to industrial training.

EMPLOYMENT AND WORKING CONDITIONS

Employers in India are free to hire an employee on any terms which the employee will accept. However, the Minimum Wages Act 1948 seeks to prevent 'Sweated Labour' and exploitation of labour. It requires the appropriate Government, Central or State, to fix minimum rates of wages payable to employees and fix the number of hours of work per day, weekly holiday and the payment of overtime wages in scheduled employments. The working conditions in factories are regulated by the Factories Act 1948. It prescribes a 48-hour week for adult workers and prohibits employment of children under 14 years of age in any factory. The Act has also spelled out minimum standards of lighting, ventilation, safety, health and welfare services which the employers have to provide in their factories. Factories with more than 250 workers have to provide well-equipped canteens for their workers.

Employers cannot withhold the wages earned by workers, nor can they make any unauthorised deductions. Under the Payment of Wages Act 1936, industrial establishments employing one thousand or more workers have to disburse wages within a week after the relevant wage periods. Fines can be imposed for only those acts or omissions which have been approved by the appropriate Government and total fine cannot exceed 3.1 per cent of the wages payable for the wage period. Fines cannot be recovered in instalments or after the expiry of 60 days from the day of act or omission for which the fine is imposed. If the payment of wages is delayed or wrongful deductions are made, the workers or their trade unions can file claim applications without any court fee.

Bonus is paid to the workers under the Payment of Bonus Act 1965, which is applicable to every factory and every other establishment in which 20 or more persons are employed on any day during the accounting year. The Act requires the employers to pay a minimum bonus equal to 4 per cent of a worker's salary or wage or Rs 40 (Rs 25 in the case of child worker), whichever is higher, in every accounting year regardless of profits. The maximum bonus payable is 20 per cent of the salary or wage.

The Government issued the Payment of Bonus (Amendment) Ordinance on 18 September 1972 raising the minimum bonus from 4 to 8⅓ per cent of a worker's salary or wage or Rs 80 (Rs 50 in the case of child worker), whichever is higher, for the accounting years commencing from 1971.

WAGES AND EARNINGS

Table 21.3 gives the average annual earnings of factory workers drawing less than Rs 400 per month in different States and Union Territories.

TABLE 21.3
AVERAGE PER CAPITA ANNUAL EARNINGS OF FACTORY WORKERS*

(*in rupees*)

State/Union Territory	1961	1966	1967	1968	1969	1970**
Andhra Pradesh ..	1,149	1,454	1,601	1,830	2,088	2,117
Assam ..	1,599	2,130	2,097	2,108	2,340	2,363
Bihar ..	1,856	2,050	2,196	2,432	2,486	2,712
Gujarat ..	1,702	2,340	2,663	2,696	2,643	2,820
Haryana ..	—	1,712	2,064	2,219	2,436	2,616
Himachal Pradesh ..	1,288	2,115	2,950	2,851	2,521	2,521
Jammu & Kashmir ..	—	978	1,209	1,532	1,805	1,638
Kerala ..	1,152	1,724	2,009	2,125	2,467	2,467
Madhya Pradesh ..	1,816	2,118	2,308	2,691	2,939	2,912
Maharashtra ..	1,775	2,480	2,676	2,826	2,903	2,903
Mysore ..	1,375	1,840	1,758	2,294	2,088	2,088
Orissa ..	1,180	2,001	2,325	2,333	2,143	2,899
Punjab ..	1,174	1,636	1,659	1,690	2,070	2,159
Rajasthan ..	761	1,412	1,882	1,853	2,003	2,003
Tamil Nadu ..	1,465	2,032	2,204	2,297	2,442	2,442
Tripura ..	—	1,271	1,897	1,945	2,010	2,010
Uttar Pradesh ..	1,264	1,825	1,978	2,157	2,200	2,293
West Bengal ..	1,410	2,024	2,175	2,382	2,675	2,761
Andaman & Nicobar Islands	1,234	1,621	1,566	1,791	2,024	2,170
Delhi ..	1,655	2,321	2,499	2,788	3,013	2,845
Goa, Daman & Diu ..	—	2,105	1,751	2,242	2,075	2,406

* Excludes railway workshops, food, beverages, tobacco, gins and presses groups but includes defence installations.

**Provisional.

avr: Rs 200/2

Real Earnings

The variation in real wages, after taking into account the rise in the consumer price index, is shown in Table 21.4.

TABLE 21.4
INDEX OF REAL EARNINGS OF WORKERS

(1961=100)

Description	1962	1963	1964	1965	1966	1967	1968	1969	1970*
General index of earnings	106	109	114	128	139	151	160	171	175
All-India working class consumer price index	103	106	121	132	146	166	171	169	178
Index of real earnings	103	103	94	97	95	91	94	101	98

* Provisional.

Regulation of Wages

The payment of wages is governed by the Payment of Wages Act 1936 and the Minimum Wages Act 1948, as amended subsequently. The former extends to the whole of India and applies to persons employed in any factory as defined in the Factories Act 1948, and in any railway, receiving wages and salaries which average below Rs 400 a month. The Act has been extended to mines, plantations, docks, wharfs or jetties in the ports of Bombay, Calcutta and Visakhapatnam, oil-fields and certain other establishments.

Minimum Wages

The Minimum Wages Act 1948 empowers the "appropriate Government" to fix minimum rates of wages of employees employed in industries specified in the Schedule. Wage rates under the Act have been fixed and notified by the State Governments and the Central Government in their respective spheres. The Central Government is the "appropriate Government" for the purposes of the Act in relation to any scheduled employment carried on by or under the authority of the Central Government or a railway administration or in relation to a mine, oilfield or major port or any corporation established by a Central Act.

Occupational Wage Surveys

The scheme envisages collection of occupational wage rates and earnings data in respect of workers employed in major manufacturing, mining and plantation industries. Besides, information on the extent of overtime work and incentive bonus schemes prevailing in the establishments is also collected. The results of the first survey conducted in 1958-59 have been published in a number of reports—a general report (published in 1963) and a number of industry reports in six separate volumes. Field work relating to the second survey was conducted in 1963-65 and a summary report embodying important findings was released in 1971. A detailed report is under preparation.

Contract Labour

The Contract Labour (Regulation and Abolition) Act 1970, which became applicable to the whole of India from 10 February 1971, provides for regulation of employment of contract labour in certain establishments and for its abolition in certain circumstances. It also fixes responsibility on the principal employer for payment of wages in case of default. The Labour Bureau has been conducting special studies to ascertain the extent and nature of contract labour in different industries. Such studies have already been undertaken for about 20 industries.

INDUSTRIAL RELATIONS

Industrial Disputes

In 1971*, there were 2,137 industrial disputes (2,889 in 1970) involving 12,26,812 workers (18,27,752 in 1970) and these resulted in the loss of 1,27,50,244 man-days (2,05,63,381 in 1970).

Industrial Employment Standing Orders

For ensuring industrial peace, it is expedient that employers in industrial establishments should precisely define the conditions of employment under them and make these known to their workmen. The Industrial Employment (Standing Orders) Act 1946 was, therefore, passed whereunder the Central Government framed model rules for adoption by industrial establishments employing one hundred or more workmen.

The Act, amended in 1961, *inter alia*, empowers the appropriate Government to extend its provisions to establishments employing less than 100 workers, makes provision for appointment of additional certifying officers and enables the Central Government to delegate its powers to State Governments wherever necessary. Another amendment in 1963 made the Model Standing Orders, framed by the appropriate Government, operative in all industrial establishments covered by it until the Standing Orders framed by the industrial establishments are certified.

The Act now applies to all establishments in Andhra Pradesh, Gujarat, Maharashtra and West Bengal employing 50 workers or more. In Assam, it applies to establishments (except mines, quarries, oilfields and railways) which employ 10 workers or more. In Tamil Nadu, all factories registered under the Factories Act 1948 are within the purview of this measure. In U.P., the Act has been extended to all member establishments of the Employers' Association of Northern India and of U.P. Oil-Mill Owners' Association, electric supply undertakings, water works and industrial establishments engaged in glass industry, oil mills registered as 'factories', establishments employing more than 50 workers in textiles, engineering, printing presses, ginning and pressing, flour, dal and rice mills, shellac industries and all industrial establishments voluntarily applying for certification of Standing Orders. Of the 2,256 establishments covered by the Act, 2,173 had certified Standing Orders in 1971.

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*Provisional figures.

Code of Discipline

The Code of Discipline, as evolved at the Indian Labour Conference in May 1958, applies to all the constituents of the central organisations of employers and workers which were party to the decision. Besides, it has been accepted by 180 independent employers and 115 trade unions which are not members of any of the central employers' and workers' organisations. The Code is also applicable to public sector undertakings run as companies and corporations except those under the Ministry of Defence, Railways and Ports and Docks. The Department of Defence Production has agreed to apply the Code to its public sector undertakings which are companies and corporations but with some modifications. The Code has also been applied with certain clarifications to the insurance industry, the State Bank of India and the Reserve Bank of India.

The Code of Discipline requires employers and workers to utilise the existing machinery for the settlement of disputes and avoid resort to direct action. The implementation organisations, set up at the Centre and in the States, have assisted in settling a number of complicated and long-standing disputes. The central organisations of employers and workers have also set up committees for dissuading their affiliate members from filing appeals in higher courts against the judgments of industrial tribunals or labour courts in keeping with the letter and spirit of the Code. A procedure for screening cases before appeals are filed by the public sector undertakings was evolved in 1964.

Industrial Truce

A joint meeting of the central organisations of employers and workers adopted an Industrial Truce Resolution in November 1962 to the effect that during an Emergency in the country there will be neither interruption nor slowing down of production, and that production will be maximised and defence efforts promoted in all possible ways. The Resolution laid down steps for promoting industrial peace, production, price stability and savings. A standing Committee under the chairmanship of the Union Minister of Labour and Employment was set up in August 1963 to review the working of the Truce Resolution in all its aspects. The Committee was later amalgamated with the Central Implementation and Evaluation Committee.

National Arbitration Promotion Board

The Truce Resolution and the Code of Discipline, both voluntary instruments, emphasise the settlement of disputes through voluntary arbitration. During 1971-72, the employers and workers in the Central sphere agreed to settle their disputes through voluntary arbitration in 11 out of 1,012 cases in which conciliation had failed. In July 1967, the Government of India set up a National Arbitration Promotion Board to promote voluntary arbitration as a means of settlement of industrial disputes. The Board comprises representatives of the employers' and workers' organisations, public undertakings and the Central and State Governments. It has taken a number of important decisions, like preparation and maintenance of an up-to-date panel of arbitrators, etc.

Grievance Procedure

The grievance procedure framed under the Code of Discipline aims at redressing the day-to-day grievances of workers. Every establishment is expected to follow the procedure laid down in the Code. The Central Industrial Relations Machinery has been entrusted with the task of persuading defaulting managements to set up grievance procedure in their undertakings.

Works Committees

Works Committees are set up in industrial establishments employing one hundred or more workmen. They are bi-partite, consisting of an equal number of workmen's and employer's representatives, and provide a forum for negotiations between the employers and workmen at the factory level. The committees seek to promote amity and good relations between employers and workmen.

In June 1971, 916 Works Committees were functioning in the Central industrial establishments.

Joint Management Councils

The scheme of Joint Management Councils, sponsored by the Government in 1958, ensures closer association of workers in management on a formally defined basis. Joint Management Councils are, at present, functioning in 80 establishments (31 in the public and 49 in the private sector). In order to further extend the scheme, Central and State Governments have set up special agencies.

Conciliation and Adjudication

The Central Industrial Relations Machinery, also known as Chief Labour Commissioner's Organisation, is responsible for the prevention, investigation and settlement of industrial disputes under the Industrial Disputes Act 1947, as also for the enforcement of some labour laws in the Central sphere.

When industrial disputes are not resolved by mutual negotiations, the conciliation machinery, *i.e.*, conciliation officers/conciliation boards, attempts to settle the disputes. It is compulsory for the conciliation officer to hold conciliation proceedings when an industrial dispute exists or is apprehended in a public utility service but it is optional in the case of other industrial establishments.

The Industrial Disputes Act also provides for voluntary/compulsory adjudication of industrial disputes. Seven Industrial Tribunals-cum-Labour Courts have been set up to adjudicate disputes in the Central sphere. Of these, three are at Dhanbad, two at Bombay and one each at Calcutta and Jabalpur. The States have their own Tribunals and Labour Courts. The Industrial-cum-Labour Court at Delhi under the Delhi Administration, also deals with some cases in the Central sphere. National Tribunals are set up by the Central Government as and when necessary.

National Commission on Labour

To promote better industrial relations in the country, the Central Government set up a National Commission on Labour in December 1966 under the chairmanship of Dr P.B. Gajendragadkar. The Commission's report, containing 300 recommendations, was submitted to the Government on 28 August 1969. Decisions have been taken on 204 of these.

TRADE UNIONS

The Indian Trade Unions Act 1926 provides for the registration of trade unions and for the adoption by them of some rules and regulations for regular supply of information regarding membership and disposal of funds. Registration is not compulsory but the Act gives protection to registered trade unions and their members against civil or criminal action for their trade union activities.

Table 21.5 shows the number and membership of the registered trade unions in India. Table 21.6 gives the membership of all-India organisations.

Workers' Representation in Management

The Government have decided to introduce a scheme for the appointment of a workers' representative on the Board of Management of every Central Government public sector undertaking. The scheme provides for the recognised union in the undertakings to submit panels of three persons from which the Government might select one for nominating as director.

SOCIAL SECURITY

Big industrial townships are fast coming up in India leading to the emergence of non-migratory industrial workers. For a hundred years, however, industrial labour has been migratory in character. Rural workers come to urban industrial establishments for brief or long spells of strenuous work in an unfamiliar environment and many of them suffer from ill-health and industrial accidents. A social security system has to be devised to protect the workers against these risks and to provide them with benefits designed to prevent or cure disease, support them when unable to earn and restore them to gainful activity.

The social security schemes in India seek to provide an adequate cover against the above mentioned contingencies. The Employees' State Insurance Act 1948 insures workers' health by providing medical services in case of sickness, maternity, and employment injuries caused by industrial accidents or occupational diseases. The Employees' Provident Funds Act 1952 prevents the workers from becoming destitute in old age, while the Workmen's Compensation Act 1923 enjoins upon the employers to compensate the workers for injuries occurring in the course of employment.

Employees' State Insurance Scheme

The Employees' State Insurance Act applies to perennial factories using power and employing 20 or more persons. It provides for medical care and treatment, cash allowance during sickness, maternity, employment injury and pension for dependants on the death of worker due to employment injury. Full medical care, short of hospitalisation, is also being progressively made available to the members of the family of the insured.

The administration of the ESI scheme is vested in a 39-member Employees' State Insurance Corporation, which is an autonomous body consisting of the representatives of the Central and State Governments, MPs, representatives of the medical profession, of employers and employees. The scheme is financed by the ESI Fund to which the employees, employers, the Central and State Governments contribute.

46 ESI hospitals with 6,927 beds, 23 annexes with 426 beds, 142 dispensaries and 721 mobile dispensaries, set up till 31 March 1972, cover 39.76 lakh employees and their 127.39 lakh dependants at 318 centres.

Employees' Provident Fund

Retirement benefits are available to the employees under the Employees' Provident Funds and Family Pension Fund Act 1952. It applied on 31 March 1972 to 127 industries all over India, except the State

TABLE 21.5

REGISTERED TRADE UNIONS AND MEMBERSHIP

Particulars	Central Unions					State Unions				
	1955–56	1966	1967	1968(P)	1969(P)	1955–56	1966	1967	1968(P)	1969(P)
Number of Unions on register	174	446	506	734(E)	641(E)	7,921	14,240	14,808	16,121	16,694(E)
Number of Unions submitting returns	105	234	295	419	144+	3,901	7,010	7,228	8,415	2,272+
Membership of Unions submitting returns	2,13,000	7,29,353	7,83,765	9,68,403	2,83,888+	20,62,000	36,62,294	37,41,682	41,48,120	8,70,866+

c. 17.5

2.5. !

·8

6 lakhs

c. 41 lakhs

(P) Provisional.

+ Incomplete—Andhra Pradesh, Assam, Bihar, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal and Manipur are excluded.

(E) Estimated by repeating the previous year's figures in respect of those States from where the returns have not been received.

TABLE 21.6

MEMBERSHIP OF ALL-INDIA ORGANISATIONS

Name of Organisation	Number of Unions affiliated				Membership			
	1958*	1960*	1966	1968	1958*	1960*	1966	1968
Indian National Trade Union Congress	727	860	1,305	1,165	9,10,221	10,53,386	14,17,553	13,26,152
All India Trade Union Congress	807	886	808	1,008	5,37,567	5,08,962	4,33,564	6,34,802
Hind Mazdoor Sabha	151	190	258	248	1,92,948	2,86,202	4,36,977	4,63,772
United Trade Union Congress	182	229	170	216	82,001	1,10,034	93,454	1,25,754
TOTAL	1,867	2,165	2,541	2,637	17,22,737	19,58,584	23,81,548	25,50,480

* Financial year ended March 31.

of Jammu and Kashmir.* The Act does not apply to any establishment registered under the Co-operative Societies Act 1912 and employing less than 50 persons and working without the aid of power.

The employers are required to contribute 6¼ per cent of the basic wages and dearness allowance including the value of food concessions and retaining allowances payable to the employees. The employees have to make a matching contribution. The Government have enhanced the rate of contribution to 8 per cent in the case of 87 industries employing 50 or more persons.

The funds are administered by the Boards of Trustees, which have been constituted at the Centre and in the States.

In March 1972, the subscribers numbered 62,50,139 (22,93,797 in exempted and 39,56,342 in unexempted establishments). The receipts in provident funds, including interest earned, stood at Rs 2,303.94 crores while the amount refunded was Rs 859.75 crores. Claims made are generally settled within 30 days and the average amount paid on each claim comes to Rs 1,324.

Death Relief

The Death Relief Fund was set up in January 1964 to afford financial help to the nominees or heirs of deceased members of unexempted establishments so that a minimum of Rs 500 was assured to them. The limit was raised to Rs 750 on 1 August 1969 and the benefit is now given to the nominees or heirs of such persons whose pay does not exceed Rs 500 per month at the time of death.

Family Pension

In order to provide long-term financial security to the families of industrial employees in the event of their premature death, the Coal Mines Family Pension Scheme 1971 and the Employees' Family Pension Scheme 1971 were introduced from 1 March 1971 for the employees covered under the Coal Mines Provident Fund and Bonus Schemes Act 1948 and the Employees' Provident Funds Act 1952. The schemes are financed by diversion of a portion of the employers' and employees' contributions to the Coal Mines Provident Fund and the Employees' Provident Fund with an additional contribution by the Central Government. The two schemes are administered by the Board of Trustees. The cost of administration of the two schemes is borne by the Central Government.

Coal Mines Provident Fund

Provident funds in coal mines are set up under the Coal Mines Provident Fund, Family Pension and Bonus Schemes Act 1948. Leaving aside a few excluded categories, all persons employed in or in connection with a coal mine, either directly by employers or through contractors, are required to become members of the fund when they have put in 60 days' attendance (above-ground miners) and 48 days' attendance (underground miners) in a calendar quarter.

Members are compulsorily required to contribute 8 per cent of their total emoluments and the employers make a matching contribution. Members may make a voluntary contribution up to 8 per cent in excess of their compulsory contribution. The subscribers can get non-recoverable advances for house-building, financing life insurance policies and for purchasing shares of consumers' co-operative societies. Full refund of provident fund balance is made in cases of superannuation, retrenchment, total incapacity for work or death.

At the end of 1971, there were 3,70,590 subscribers to the provident funds set up in 1,332 coal mines and ancillary organisations.

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* The State of Jammu & Kashmir enacted a separate legislation in June 1961.

Coal Mines (Attendance) Bonus

The bonus scheme was framed under the Coal Mines Provident Fund, Family Pension and Bonus Schemes Act 1948 to provide an incentive to the workers to be more regular in attendance and to avoid taking part in illegal strikes. This is done by paying quarterly bonus at 10 per cent of the basic earnings in the quarter in addition to wages to those workers who put in specified days of attendance.

In December 1971, the scheme covered 742 collieries all over India, except Jammu and Kashmir, and the number of persons who qualified for bonus was 1,94,198.

Workmen's Compensation

The Workmen's Compensation Act 1923, as amended in 1962, enjoins upon the employers to compensate the workers against occupational diseases and injuries arising out of and in the course of employment. The Act has prescribed separate scales of compensation for death, permanent total disablement, permanent partial disablement and temporary disablement.

The Act now covers workmen whose monthly wages do not exceed Rs 500.

Maternity Benefits

Legislation concerning the payment of maternity benefits, before and after confinement, is in operation in almost all the States. The qualifying period and the rates of benefit vary from State to State. Three Central Acts—the Employees' State Insurance Act 1948, Plantations Labour Act 1951 and Mines Maternity Benefit Act 1941—also regulate payment of maternity benefits. The Maternity Benefit Act 1961 was enacted to provide uniform standards for maternity protection. It applies, in the first instance, to all factories, mines and plantations except those to which the Employees' State Insurance Act applies. The Act was brought into force in mines from November 1963. In establishments other than mines, it is administered by the State Governments. Most State Governments have already brought the Central Act into force after repealing the State Acts.

The Maternity Benefit Act 1961 was amended in 1972 to provide that in the event of the application of the Employees' State Insurance Act 1948 to any factory or establishment, maternity benefits under the Maternity Benefit Act would continue to be available to women workers until they qualify for similar benefits under the Employees' State Insurance Act.

LABOUR WELFARE

Labour welfare means the provision of such facilities and amenities to the workers at their workplace which enable them to perform their work in healthy and congenial surroundings and keep up their morale. These amenities include canteens, rest shelters, creches, medical aid, educational and recreational facilities and are provided in factories, mines and plantations covered by the Factories Act 1948, the Mines Act 1952, the Plantations Labour Act 1951 and the Bidi and Cigar Workers' (Conditions of Employment) Act 1966. Contract labour also gets these amenities under the Contract Labour (Regulation and Abolition) Act 1970. Factories employing 500 or more workers have to appoint welfare officers to look after the welfare of the workers. In addition, legislation has been enacted to set up funds for financing welfare schemes in coal and mica mines.

Coal Mines

A cess of not more than 49.41 paise per metric tonne is levied on the coke and coal despatches from the collieries under the Coal Mines Labour Welfare Fund Act 1947. The collections go to a fund which is administered by the Coal Mines Welfare Commissioner, Dhanbad, assisted by a tripartite advisory committee. The money is utilised in maintaining 3 central hospitals, 12 regional hospital-cum-maternity centres, 53 maternity and child welfare centres, a T.B. clinic, 4 T.B. hospitals, 29 Ayurvedic dispensaries and a mobile medical unit. Interest free loans are given to colliery owners for equipping their dispensaries for family planning work and treatment of mental diseases, leprosy and cancer.

Educational and recreational facilities are provided to colliery workers and their dependants at 52 multi-purpose institutes, 140 feeder adult education centres, two holiday homes and two boarding houses.

67,266 houses and 158 barracks have been completed with financial assistance provided under the welfare schemes. Subsidy is paid to State Governments/colliery owners for implementing water supply schemes.

197 credit co-operative societies, 12 wholesale central co-operative stores and 372 primary stores are functioning in different coal fields.

Mica Mines

For financing mica miners' welfare schemes, a 2½ per cent *ad valorem* cess is levied as customs duty on mica exports from India under the Mica Mines Labour Welfare Fund Act 1947. The Customs Department deducts ½ per cent as collection charges and the balance is given to tripartite advisory committees for welfare schemes in the three mica-mining regions of Bihar, Andhra Pradesh and Rajasthan. A Central Advisory Board, set up by the Government, co-ordinates the activities in the three regions.

Hospitals have been established for mica mine workers at Karma and Tisri (Bihar), Kalichedu and Tulupur (Andhra Pradesh) and Gangapur (Rajasthan). Mobile dispensaries also operate in certain areas. Several primary schools, hostels and boarding houses have been set up and mica miners' children are provided with free mid-day meals, school uniforms, books and stationery. Awards and scholarships are also given.

Iron Ore Mines

A cess of 25 paise per metric tonne production in iron ore mining industries is levied under the Iron Ore Mines Labour Welfare Cess Act 1961. The Cess Commissioners collect the fund, which is administered by the Advisory Committee constituted in the iron ore producing States and Union Territories, *i.e.*, Andhra Pradesh, Bihar, Goa, Daman and Diu, Madhya Pradesh, Maharashtra, Mysore and Orissa.

The cess is being utilised in maintaining an emergency hospital at Barajmada (Bihar) besides a primary health centre each at Joda and Joruri (Orissa) and Redi (Maharashtra). 2,042 houses under the New Housing Scheme and 144 houses under the Low Cost Housing Scheme have been constructed while several multi-purpose institutes provide educational, cultural and recreational facilities to the workers and their families.

Dock Labour

Various welfare measures have been undertaken for the dock workers in Bombay, Calcutta, Cochin, Kandla, Madras, Marmugao, Vishakhapatnam and other ports. Housing, medical, education, recreation and canteen facilities are provided. Fair price shops and consumers' co-operative societies are also working in some of the ports. Educational assistance for workers' children is provided and their tuition fees are reimbursed.

Plantation Labour

Under the Plantations Labour Act 1951, all plantations are required to provide housing accommodation to their resident workers and their families and to maintain hospitals or dispensaries. Some of them also run elementary schools for the education of the labourers' children. Training in useful handicrafts such as tailoring, knitting, weaving and basket-making and recreational facilities are provided in some of the tea estate centres with the help of donations from the Tea Board.

The Act was amended in 1960 to check, *inter alia*, fragmentation of plantations by employers in order to escape their liabilities.

Motor Transport Workers

The Motor Transport Workers' Act 1961 provides for the welfare of motor transport workers and for the regulation of the conditions of their work. It provides for canteens, rest rooms, uniforms, hours of work, leave, etc. The Act is administered by the State Governments who have framed rules for its enforcement.

Welfare Funds in Central Undertakings

These welfare funds were created on a voluntary basis in 1946. It has been decided to enlarge the scope of the funds to utilise them for social and educational purposes of the workers.

WORKERS' EDUCATION

The object of the workers' education scheme is to create a well-informed and responsible labour force capable of organising and running trade unions on sound lines. The Central Board for Workers' Education, consisting of representatives of Government, both Central and State, organisations of employers and workers and educationists, is a registered society for implementing the scheme. The Board has established 30 regional centres to cover important industrial areas/centres in the country.

The programme of workers' education is divided into three stages. The first stage consists of training of Education Officers who are whole-time employees of the Board. In the second stage, workers sponsored by trade unions are trained by the Education Officers in whole-time training courses of three months' duration. These workers are called worker-teachers. In the third stage, the worker-teachers, on completion of training, revert to their places of employment and conduct classes for the rank and file of workers.

The number of worker-teachers and workers trained on 31 March 1972 was 25,119 and 12,21,613, respectively.

The Board gives grants-in-aid to the trade unions/institutions to conduct programmes of workers' education on the approved pattern.

WORKERS' SAFETY

National Awards

Ten schemes for the grant of National Safety Awards have been instituted for the purpose of according recognition to good safety records in industrial undertakings covered by the Factories Act 1948 and in ports. Each scheme provides for cash prizes and certificates of merit. Shram Vir National Awards Scheme is applicable to workers in factories, mines, plantations and docks. These awards are given in recognition of meritorious performance by workers on the basis of their useful suggestions leading to higher productivity, economy or greater efficiency. Twenty workers were awarded the Shram Vir Awards and 38 factories were given the National Safety Awards in 1971-72.

Safety in Mines

The Mines Act 1952 and the rules, regulations and bye-laws made thereunder, provide for the regulation of labour and safety in mines. The fatality per thousand persons in coal mines declined from 0.73

in 1956 to 0.50 in 1970. The rate for all mines was 0.43 in 1970 as against 0.50 in 1969.

National Safety Council

The National Safety Council was set up in pursuance of the recommendations of the Presidents' Conference on Industrial Safety (1965) and the decision of the Standing Labour Committee (1966). It organises seminars and courses on matters relating to safety, organises film shows in factories and distributes safety posters.

In December 1971, the Council's membership consisted of 658 corporate members and 133 individual members.

COMMITTEE ON AUTOMATION

A Committee on Automation was set up by the Central Government in July 1969 with Shri R. Venkataraman as chairman to review the effect of automation in enterprises in which it has already been introduced and recommend criteria for determining areas and fields in which automation, including computers, may be permitted. The Committee was also asked to recommend safeguards for avoiding or minimising any harmful social effects of automation.

The Committee's report, submitted in June 1972, is being considered by the Government.

Committee of Experts on Unemployment

The Government of India set up on 19 December 1970 a Committee of Experts on Unemployment under the chairmanship of Shri B. Bhagvati to assess the extent of unemployment and under-employment in all its aspects and to suggest remedial measures. Pending its final report and keeping in view the mounting problem of unemployment and urgent need to suggest the remedial measures which could be taken up during the next two years, the Committee submitted an Interim Report in February 1972. The recommendations made by the Committee are under consideration. The final report of the Committee is under preparation.

22 HOUSING

The problem of housing in India is a complex one requiring funds on a large scale and is dependent for its solution on the concerted efforts of individuals, co-operatives, States and the Union Government. There is an acute shortage of houses in urban and rural areas and much of the available accommodation is qualitatively sub-standard. Increase in population since 1921, heavy migration of population from rural to urban areas and the comparative inability of private enterprise to keep pace with the growing demand for houses has contributed to the inadequacy of dwelling units in urban areas.

In rural areas about 94 per cent and in urban areas about 46 per cent of the households own their houses. Most of the rural houses are, however, mud huts. A large section of industrial workers in the cities also lives in sub-standard accommodation. The shortage of housing at the beginning of the Fourth Plan was estimated roughly at 8.37 crore units—1.19 crores in urban areas and 7.18 crores in rural areas on the assumption that each family should have a separate dwelling of a reasonably permanent character. The overall housing shortage is estimated to increase by more than 20 lakh units annually.

The activities of the Central Government in the field of housing were restricted to providing houses for their employees, particularly those in the essential services till 1950. To cope with the influx of displaced persons from Pakistan, the Union Government undertook for the first time a large-scale housing programme for persons other than their own employees. A similar extension of state activity was made in West Bengal, Assam, Bihar, Orissa and Punjab.

In May 1952, a separate portfolio for Housing was created in the Union Government. Since then, organised efforts have been made to step up housing activities in general and to provide financial assistance, in particular, for construction of houses to individuals, co-operatives, industrial employers, planters, local bodies, etc., through the introduction of various social housing schemes.

A number of employers in the private sector have also invested part of their earnings in providing better living conditions for their workers. Construction of houses by employers has generally fallen short of expectations. Co-operative housing societies, particularly in Andhra Pradesh, Mysore, Tamil Nadu, Maharashtra and Uttar Pradesh have also attempted, though to a limited extent, to provide accommodation for middle and low income groups. The Life Insurance Corporation of India also contributes funds for social housing.

For speedy execution of housing programmes in the States, statutory housing boards have been established in Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Mysore, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and Goa, Daman and Diu. In Assam, Punjab and Pondicherry also statutory housing boards are being set up.

Besides, Government efforts are directed towards keeping land values under check and lowering construction costs through research and supply of building material at reasonable price.

PROGRESS UNDER FIRST THREE PLANS

The period of the First Plan was devoted to the formulation of a national housing programme. Two urban housing schemes, *viz.*, Subsidised Industrial Housing Scheme and Low Income Group Housing Scheme were taken up. Under these schemes 51,363 houses were completed at a cost of Rs 24.12 crores. This effort was supplemented by housing programmes for certain sections of the population like displaced persons, Government servants, etc., launched by the Central and State Governments and local authorities. It has been estimated that public authorities provided about seven lakh houses or tenements during the First Plan period.

During the Second Plan, six more social housing schemes, namely, (i) Subsidised Housing Scheme for Plantation Workers, (ii) Slum Clearance Scheme, (iii) Village Housing Projects Scheme, (iv) Middle Income Group Housing Scheme, (v) Rental Housing Scheme for State Government Employees, and (vi) Land Acquisition and Development Scheme, were taken up. The Union Government disbursed funds to the extent of Rs 72.61 crores, while Rs 17.14 crores came from the Life Insurance Corporation. This resulted in the completion of 1,45,078 houses. Substantial housing programmes of their own were also undertaken outside these schemes by the Union and State Governments as well as by the local bodies. The estimated outlay on public housing during the Second Plan was about Rs 250 crores and five lakh houses were constructed. In the private sector, an investment of about Rs 1,000 crores was estimated to have gone into housing and other private construction.

During the Third Plan, an amount of Rs 147.55 crores was spent, Rs 87.55 crores from Plan funds and Rs 60 crores from Life Insurance Corporation funds, on the eight social housing schemes started during the earlier Plans and 1,87,081 houses were completed. Another scheme for the removal of *jhuggis* and *jhonpris* was introduced in Delhi only and 22,678 units were completed during the Third Plan.

During the first three Plans, about 4 lakh dwelling units were constructed under various social housing schemes at a cost of about Rs 261.42 crores.

ACHIEVEMENTS DURING 1966-69

During 1966-69, a sum of Rs 62.85 crores, Rs 26.30 crores from Plan funds and Rs 36.55 crores from LIC funds, was spent on the social housing schemes and 74,776 houses were completed. In addition to this, 32,802 units were completed in Delhi under the Jhuggi and Jhonpri Scheme bringing the total number of houses completed to 1,07,578.

FOURTH PLAN

The Fourth Plan outlay on housing and urban development is Rs 242.92 crores (Rs 173.03 crores for housing and Rs 69.89 crores for urban development)—Rs 48.60 crores for the Centre, Rs 172.99 crores for the States and Rs 21.33 crores for the Union Territories. Out of this sum, Rs 134.05 crores (55.18 per cent) is estimated to have been spent on housing and urban development during the first three years of the Plan, *i.e.*, 1969-72, the Central share being Rs 22.51 crores, the States' Rs 98.81 crores and the Union Territories, Rs 12.73 crores. On housing alone, total estimated expenditure during 1969-72 was Rs 97.82 crores. The investment on housing in the private sector is expected to rise to Rs 2,140 crores during the Fourth Plan from an estimated investment of Rs 1,400 crores in the Third Plan.

All the social housing schemes, except those relating to subsidised housing for plantation workers (started in 1966), provision of house-sites to landless workers in rural areas (October 1971) and environmental improvement of slums (April 1972), have now been included in the States' sector and are actually being implemented by the State Governments.

The total Fourth Plan outlay on housing for States' sector is Rs 124.53 crores, Rs 114.86 crores for the States and Rs 9.67 crores for Union Territories. Of this, a sum of Rs 79.05 crores is estimated to have already been spent during 1969-72.

Out of the target of 1,73,000 houses to be constructed during the Fourth Plan (exclusive of the targets of Maharashtra and Meghalaya for which figures are not available), 66,430 houses were completed during the period 1969-72 under various social housing schemes.

Life Insurance Corporation

To augment the financial resources of the State Governments, the Life Insurance Corporation of India advances loans to the State Governments for some of the social housing schemes.

The Corporation has so far provided about Rs 156.15 crores since 1959 (including Rs 14 crores during 1971-72) as loans to the State Governments. It has also advanced special loans amounting to Rs 10 crores during 1971-72 direct to the State housing boards at a rate of interest higher than that charged on loans advanced by the Corporation to the State Governments.

Housing and Urban Development Corporation

This Corporation was incorporated as a Government company in April 1970. It is expected to build up a revolving fund of about Rs 200 crores through Government allocation, borrowings from financial institutions like the Life Insurance Corporation, Unit Trust of India and nationalised banks. The Corporation lends money to the State Governments, State housing boards and housing and urban authorities for financing housing projects. Loans amounting to Rs 37.59 crores for the construction of 33,745 houses/flats, for the development of 18,962 plots (for sale) and five acres of land had been sanctioned to various States/Union Territory Governments and State housing boards by the Corporation up to 20 April 1972.

HOUSING MINISTERS' CONFERENCE

A Conference of the State Housing Ministers was held at New Delhi in November 1971. The Conference recommended that: (1) high priority should be given to housing and urban development in the national planning and the State Governments should provide adequate funds for this purpose; (2) State Governments should evolve a sound urban land policy to allow State housing boards the maximum freedom to make public borrowings; (3) State Governments should enact legislation on the pattern of Maharashtra Apartment Ownership Act 1970 to protect the interest of buyers of flats in multi-storeyed buildings being put up in the metropolitan cities; and (4) ceilings on the loans admissible under the Low Income Housing Scheme and Middle Income Group Housing Scheme should be raised to Rs 14,500 and Rs 27,500, respectively. The first three recommendations mentioned above are intended for action by the State Governments and the last recommendation has since been accepted by the Government of India.

Ceiling on Urban Property

The Conference favoured Central legislation on ceiling on urban property. The Central Government set up on 9 January 1972 an eleven-member study group headed by Shri P.C. Mathew, Secretary, Ministry of Works and Housing, to examine the replies received from various State Governments to the Draft Urban Property (Ceiling) Bill, 1970 and to suggest modifications, additions and deletions required in it. The Committee submitted its report to the Government on 15 April 1972.

SOCIAL HOUSING SCHEMES

Under the various social housing schemes being implemented in the States and Union Territories, 5,80,208 houses had been completed by the end of the third year of the Fourth Plan, *i.e.*, 1971-72. About 25,550 acres of land had been acquired by the State Governments and about 14,347 acres of land had been developed for housing purposes by that date.

A brief resume of the progress of the various schemes is given below.

Scheme for Industrial Workers and Weaker Sections

The Integrated Subsidised Housing Scheme for Industrial Workers and Economically Weaker Sections of the Community is an amalgamation of the Subsidised Housing Scheme for Industrial Workers introduced in 1952 and the housing programme for economically weaker sections of the community initiated in 1962 under the Low Income Group Housing Scheme. The integrated scheme came into force from 1 April 1966. Industrial workers and persons whose wages/income do not exceed Rs 350 p.m. and are otherwise eligible, are entitled to the allotment of houses built under the scheme on rents subsidised to the extent of 50 per cent of the approved cost of construction.

Where an employer does not want to construct houses, the State Governments can take up construction on his behalf, provided he pays in advance a fourth of the approved cost of construction. Up to the end of 1971-72, 1,76,275 houses had been constructed under this scheme.

Low Income Group Housing Scheme

Introduced in November 1954, this scheme provides for loans to persons (or their co-operatives) whose income does not exceed Rs 7,200 per annum. The amount of loan is restricted to 80 per cent of the cost of the house (including the cost of the developed land) subject to a maximum of Rs 14,500 per house. Up to the end of 1971-72, construction of 1,43,450 houses had been completed under this scheme.

Subsidised Housing Scheme for Plantation Workers

Introduced in 1956, this scheme, which is a Central sector scheme from 1 April 1970, provides for the grant of financial assistance to planters to the extent of 87½ per cent of the approved cost of projects (37½ per cent subsidy and 50 per cent loan) for the construction of rent-free houses for their workers. The balance of 12½ per cent is to be contributed by the planters themselves. In the case of co-operatives of plantation workers, financial assistance is given up to 90 per cent of the approved cost of a project, 65 per cent as loan and 25 per cent as subsidy. The balance of 10 per cent is to be arranged by the co-operatives themselves. The scheme is at present being implemented in six States, *viz.*, Assam, Kerala, Tamil Nadu, Mysore, West Bengal and Tripura. Since the inception of the scheme to the end of 1971-72, construction of 1,747 houses had been completed under this scheme.

Slum Clearance/Improvement Scheme

The Slum Clearance/Improvement Scheme came into operation in May 1956. It provides financial assistance to the State Governments to the extent of 87½ per cent of the approved cost of the project

(50 per cent as loan and 37½ per cent as subsidy) for improvement of slum areas and also for rehousing families living there, whose income does not exceed Rs 350 p.m. The remaining 12½ per cent of the cost is to be provided by the State Governments as subsidy from their own resources. (An additional 12½ per cent subsidy is also available from the Department of Social Welfare for housing sweepers and scavangers involved in the slum clearance projects, the Central loan being reduced by an equal amount).

Since the inception of the scheme in May 1956 up to 31 March 1972, the number of dwelling units completed was 83,804.

Jhuggi and Jhonpri Removal Scheme

The Jhuggi and Jhonpri Removal Scheme, which was introduced in 1960, is intended to provide alternative accommodation to unauthorised occupants of Government and public lands in Delhi and New Delhi. Such accommodation had been provided to 78,403 squatter families at a cost of Rs 10.4 crores by the end of 1971-72.

Environmental Improvement of Slums

In 1970, the Government of India decided to give 100 per cent subsidy to the Government of West Bengal for providing essential amenities in *bustees* in Calcutta Metropolitan District. This programme has made substantial progress. For 1972-73, the Central Government had made a provision of Rs 15 crores for providing such amenities in 11 metropolitan cities having a population of more than 8 lakh persons each including Calcutta. The implementation of this programme will ensure provision of amenities like drinking water, community latrines and baths, sewerage and drainage, paved streets and lanes with electric lights in the slum areas of these cities.

Village Housing Scheme

This scheme, introduced in August 1957, provides for (i) the grants to the State Governments for the allotment of house-sites, either free of cost or at a nominal price, to the landless agricultural workers; (ii) loans for construction and improvement of houses in villages up to 80 per cent of the cost of construction but not exceeding Rs 3,000 per house; and (iii) grants to the State Governments for laying of streets and drains to improve the environmental conditions in the villages.

Up to the end of 1971-72, 50,525 houses had been completed under this scheme.

Middle Income Group Housing Scheme

The scheme, introduced in 1959, is generally financed from the funds made available by the Life Insurance Corporation of India as loans to the State Governments. In the Union Territories, as in the case of Low Income Group Housing Scheme, funds are provided by the Government of India. Financial assistance under the scheme is available for grant of loans to individuals (or their co-operatives) in the income-range of Rs 7,201 to Rs 18,000 per annum for construction of houses. Loans are also admissible to eligible persons for purchase of ready-built houses.

Up to the end of 1971-72, 25,730 houses had been constructed under this scheme.

Scheme for State Government Employees

The Rental Housing Scheme for State Government Employees was introduced in 1959 to assist the State Governments in providing rental housing accommodation for their employees. Like the Middle Income Group Housing Scheme, it is financed from the loans made available to the State Governments by the Life Insurance Corporation of India.

Up to the end of 1971-72, construction of 20,274 houses had been completed under this scheme.

Land Acquisition and Development Scheme

The scheme, introduced in 1959, is intended to assist the State Governments in acquiring and developing land in the urban areas so that developed plots can be made available at reasonable prices to intending house builders, particularly those in the lower income groups. It is financed from the funds made available by the Life Insurance Corporation of India. In the case of the Union Territories, funds are provided by the Central Government.

Up to the end of 1971-72, about 25,500 acres of land had been acquired and about 14,347 acres developed by the State and Union Territory Governments.

Free House-sites for Landless Workers

A Central scheme for providing free house-sites, measuring 100 sq. yards each, to the landless workers in the rural areas was introduced in October 1971. This will be implemented through the State Governments and Union Territory Administrations with 100 per cent Central grant in the community development blocks. Nine States and three Union Territories have already enacted suitable legislation conferring homestead rights on the landless workers who are in occupation of such sites in rural areas. So far, grants-in-aid to the extent of Rs 3.89 crores have been sanctioned to four States, *viz.*, Kerala, Uttar Pradesh, Mysore and Tamil Nadu.

Advances to Central Employees

Under the scheme to grant house building advances to the Central Government employees initiated in 1956, the Central Government employees, including those governed by the Payment of Wages Act, are entitled to loan assistance. Till the end of 31 May 1972, 18,306 applications for loans totalling Rs 28.28 crores had been approved.

NATIONAL BUILDINGS ORGANISATION

The National Buildings Organisation was set up in 1954 to collect, study and disseminate results of research in buildings and housing with a view to bringing about quality improvement and cost reduction in buildings through improvements in design and construction techniques and building materials. The Organisation also conducts studies in various socio-economic aspects of housing like investment, finance, taxation, rent control, speculation in land prices, etc., and also collects and compiles housing statistics. Its five regional rural housing wings are working at Bangalore, Calcutta, Anand, Chandigarh and New Delhi for research, training and extension in rural housing.

The Organisation has set up a permanent building exhibition in Nirman Bhavan, New Delhi, where building materials are exhibited along with display of new materials and construction techniques evolved by research organisations. Typical house designs for small size plots are also available at this exhibition. The Organisation maintains a well-documented technical book library and a film library. It disseminates information through publications, symposia and training courses. To promote introduction of improved construction methods and of new materials, the Organisation gives grants to Government bodies up to 75 per cent of the cost of construction for experimental projects.

The Organisation also functions as "UN Regional Housing Centre" for ECAFE region and some of its activities cover the entire ECAFE region.

URBAN DEVELOPMENT

Planned urban development in the country is now being done as a part of the national planning. Master plans for the development of larger cities have been formulated by the State Governments for this purpose. Implementation of plans for 52 cities has been taken in hand.

The outlay during the Fourth Plan on urban development is estimated to be Rs 70.39 crores, of which Rs 0.50 crores is for the Centre, Rs 59.50 crores for the States and Rs 10.39 crores for the Union Territories. In the Central sector, there are two programmes in operation, namely, preparation of inter-State plans by the Town and Country Planning Organisation under the Ministry of Works and Housing and training and research in local Government administration. Work is in progress on the National Capital Region Plan around Delhi, which covers the Union Territory of Delhi and parts of Haryana and Uttar Pradesh. Work is also in progress in the south-east region covering parts of West Bengal, Bihar, Orissa and Madhya Pradesh. Under the Scheme for Large Scale Acquisition, Development and Disposal of Land in Delhi, about 73,000 acres of land has been notified by the Delhi Administration, out of which 36,896 acres of land has been finally acquired. Physical possession of 33,358 acres has been taken over, out of which 18,583 acres have been placed at the disposal of the Delhi Development Authority and 11,123 acres at the disposal of the Delhi Municipal Corporation, Government and semi-Government Departments and co-operative house building societies.

Hindustan Housing Factory

The principal activity of this factory is to manufacture pre-fabricated reinforced cement concrete components, pre-stressed cement transmission poles, foam concrete panels, partition and insulation blocks, etc. It undertakes wooden joinery work and manufactures furniture. The factory which is located ln New Delhi, has standardised certain pre-cast building components for use by the individual house-builders and construction agencies.

National Building Construction Corporation

This Corporation undertakes construction works on behalf of the Government and its various agencies. It also owns a mechanised brick plant.

23 STATES AND UNION TERRITORIES

ANDHRA PRADESH

Area: 2,76,814 sq. km
Population: 4,35,02,708
Capital: Hyderabad
Principal language: Telugu

AGRICULTURE

Agriculture is the main occupation of over 67 per cent of the people of Andhra Pradesh. Thirty-one per cent of the cultivated area is irrigated. The State is surplus in foodgrains, particularly rice. Other important crops are tobacco, oilseeds, cotton and sugarcane. The production of foodgrains, sugarcane and oilseeds during 1970-71 was 68.90, 10.61 and 12.7 lakh tonnes respectively. The production of cotton was 1.40 lakh bales in 1970-71. About 50 per cent of the country's entire production of castor and 95 per cent of Virginia tobacco are achieved in Andhra Pradesh.

Forests cover 22.5 per cent of the State's geographical area. Important forest products are timber, bamboo and casuarina.

INDUSTRY

The State is endowed with a rich variety of minerals. The asbestos deposits in the State are important. In fact, it has a virtual monopoly of quality "chrysotile asbestos" in India. It produces about 75 per cent of India's total production of barytes. Other important minerals found in the State are: iron ore, manganese, mica, coal and limestone. The State ranks sixth in manganese ore production.

A number of major industries have been established in the State, especially around Hyderabad and Visakhapatnam; the latter is to have a steel plant. These produce machine tools, synthetic drugs, pharmaceuticals, heavy electrical machinery, ships, fertilizers, electronic equipments and aeronautical parts, etc. The four autonomous corporations—the Andhra Pradesh Industrial Development Corporation, the Andhra Pradesh Small-Scale Industries Development Corporation, the Mining Corporation and the State Financial Corporation—help in industrial development of the State.

IRRIGATION AND POWER

Andhra Pradesh is known as the "River State of the Indian Union". Important irrigation schemes implemented since Independence include Nagarjunasagar Project, Prakasam Barrage, Tungabhadra Low Level Canal, Kurnool-Cuddapah Canal, Kaddam Project, Romperu Drainage Project and Upper Pennar Project in addition to numerous other medium and minor irrigation schemes. Pochampad Project on the Godavari is under completion. Important power projects are the Machhkund, Upper Sileru and Nizamsagar hydel power schemes and Nellore, Ramagundam and Kothagudem thermal stations. The present installed capacity in the State is 620.4 mw, which is expected to be 958 mw at the end of the Fourth Five Year Plan. The per capita consumption of electricity which was 2.5 kwh at the beginning of the First Plan, rose to 44 kwh at the beginning of the Fourth Plan. The State's prestige power project—the Srisailam Hydro-electric Project—is under construction.

GOVERNMENT *Governor:* Khandubhai K. Desai

The State was brought under President's rule on 18 January 1973.

Legislative Council* *Chairman:* Thota Ramaswami
Deputy Chairman: Syed Mukkassir Shah

Legislative Assembly* *Speaker:* P. Ranga Reddi.
Deputy Speaker: C. Jagannada Rao

High Court** *Chief Justice:* Gopal Rao Ekbote

Judges: M. Krishna Rao, S. Obul Reddy, A. Sambasive Rao, C. Kondaiah, A. Kuppuswami, O. Chinnappa Reddy, K. Madhava Reddy, K. Ramachandrarao, A.D.V. Reddy, M. Ramachandra Raju, P. Sriramulu, T. Lakshmaiah, A.V. Krishna Rao and K.A. Muktadar.

Additional Judges: G. Venkatrama Sastri, P. Channakesav Reddi and V. Madhava Rao.

Public Service Commission* *Chairman:* D.N. Reddy

Members: G. Satyanarayana and M.B. Gautam Rao.

Chief Secretary: V.K. Rao

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Adilabad	16,133	12,88,348	Adilabad
2. Anantapur	19,125	21,15,321	Anantapur
3. Chittoor	15,763	22,85,536	Chittoor
4. Cuddapah	15,356	15,77,267	Cuddapah
5. East Godavari	10,970	30,87,262	Kakinada
6. Guntur	11,377	28,44,488	Guntur
7. Hyderabad	7,707	27,91,762	Hyderabad
8. Karimnagar	11,824	19,63,928	Karimnagar
9. Khammam	15,872	13,69,892	Khammam
10. Krishna	8,734	24,93,574	Bander/Masulipatnam
11. Kurnool	18,799	19,82,090	Kurnool
12. Mahboobnagar	18,419	19,32,082	Mahboobnagar
13. Medak	9,685	14,67,944	Sangareddi
14. Nalgonda	14,242	18,19,738	Nalgonda
15. Nellore	13,058	16,09,617	Nellore
16. Nizamabad	7,969	13,13,268	Nizamabad
17. Ongole	17,620	19,19,995	Ongole
18. Visakhapatnam	13,799	28,05,366	Visakhapatnam
19. Srikakulam	9,743	25,89,991	Srikakulam
20. Warangal	12,875	18,70,933	Warangal
21. West Godavari	7,744	23,74,306	Eluru

ASSAM†

Area: 78,523 sq. km
Capital: Shillong
Population: 1,46,25,159
Principal languages: Assamese and Bengali

AGRICULTURE The area under food crops in Assam accounts for over 70 per cent of the total cultivated area. The principal food crop is paddy while the main cash crops are jute, tea, cotton, oilseeds, sugarcane, potato and oranges and other fruits. The total production of some of these crops during 1970-71 was: foodgrains 20.7 lakh tonnes, oilseeds 62,200 tonnes, sugarcane (gur) 1.62 lakh tonnes and jute 9.87 lakh bales.

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* As on 29 May 1972 ** As on 15 May 1972.

† The State was reorganised on 21 January 1972 as a result of North-Eastern Areas (Reorganisation) Act, 1971.

Forests cover about 21.70 per cent of the total geographical area of the State. The main forest products are timber, bamboo, reeds, medicinal herbs, lac, cane, elephant tusks, etc.

INDUSTRY

Assam is rich in mineral wealth. It holds a unique position in the production of mineral oil. Other minerals found in the State are coal, limestone, silimanite, refractory clay, dolomite, corundum and natural gas.

Of the agriculture-based industries, tea occupies an important place. There are over 750 tea plantations in the State. Petroleum and petroleum products form the other main industries. The State has two oil refineries and the third one with a petro-chemical complex is now under way. There is also a public sector fertilizer factory at Namrup. Other industries of Assam are sugar, jute, silk, paper, plywood manufacture and rice and oil milling. The important cottage industries are: handloom, sericulture, manufacture of cane and bamboo articles, carpentry, smithy and manufacture of brass utensils.

IRRIGATION AND POWER

The two medium irrigation schemes started in the State during the Third Five Year Plan and spilled over to the Fourth Plan are the Jamuna and Sukla Irrigation Projects. The Jamuna Project was commissioned in June 1969.

Assam had only twenty electrified villages in 1951; the number has increased to 1,000 in 1971. For irrigation, the State had installed 67 pump sets/tube-wells by March 1971. It was nil in 1951.

GOVERNMENT

Governor: B.K. Nehru

Council of Ministers*

Chief Minister: Sarat Chandra Sinha
Cabinet Ministers: Syed Ahmed Ali, Paramananda Gogoi, Gajen Tanti, Mohammad Idris, Mahitosh Purkayastha, Dr Lutfur Rahman, Upendra Dass, Uttam Chandra Brahma, Harendra Nath Talukdar, Chatrasing Teron and Joy Bhadra Hagjer.
Ministers of State: Hiteswar Saikia, Bishnu Prasad and Smt. Swarna Probha Mahanta.

Legislative Assembly*

Speaker: R.C. Barua
Deputy Speaker: Golak Chand Rajbongshi

High Court Gauhati**

Chief Justice: P.K. Goswami
Judges: M.C. Pathak, D.N. Sen, B.N. Sarma, Ram Singh Bindra and Bahurul-Islam.

Public Service Commission*

Chairman: R. Thanhlira
Members: R.M. Das and M.N. Gogai.

Chief Secretary: D. Das

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* As on 12 May 1972.

** As on 15 May 1972. The entire North-Eastern region, *i.e.*, Assam, Meghalaya, Manipur, Nagaland and Mizoram is under the jurisdiction of Gauhati High Court.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq. km)	Population (1971 census)	Headquarters
1. Cachar	6,962	17,13,318	Silchar
2. Darrang	8,775	17,36,188	Tezpur
3. Goalpara	10,359	22,25,103	Dhubri
4. Kamrup	9,863	28,54,183	Gauhati
5. Lakhimpur	12,792	21,22,719	Dibrugarh
6. Nowgong	5,561	16,80,895	Nowgong
7. Mikir Hills	10,332	3,79,310	Diphu
8. North Cachar Hills	4,890	76,047	Haflong
9. Sibsagar	8,989	18,37,389	Jorhat

BIHAR

Area: 1,73,876 sq. km
Population: 5,63,53,369
Capital: Patna
Principal language: Hindi

AGRICULTURE

Irrigated area forms about 25 per cent of the net cultivable area of the State. The principal food crops are paddy, wheat, maize, bajra, pulses, etc. Main cash crops are sugarcane, oilseeds, tobacco and jute. The production of foodgrains increased from 75.46 lakh tonnes in 1969-70 to 81.46 lakh tonnes in 1970-71 and jute from 6.68 lakh bales to 7.73 lakh bales. The production of sugarcane (gur) and oilseeds during 1970-71 was 6.49 lakh tonnes and 1.08 lakh tonnes respectively.

Forests cover about 19 per cent of the total area. Important forest products are timber, bamboo, *Kendu* leaves, lac, gum, resins, etc.

INDUSTRY

Bihar is one of the richest States in India in mineral wealth, accounting for 41 per cent of the total mineral production of the country. It produces 100 per cent of copper and apatite, 95 per cent of kyanite, 50 per cent of coal, mica, and china clay. It is also one of the principal iron producing States in the country. Other minerals having significant production in Bihar are manganese, limestone, graphite, chromite, asbestos, barytes, dolomite, felspar, columbite, saltpetre, glass sands, slate, lead, mica, silver, building stones and radio-active minerals. Shellac is another important product of the State. The State, therefore, offers enormous scope for establishment of mineral-based industries.

Tata Iron and Steel Company (TISCO) and Tata Engineering and Locomotive Company (TELCO) at Jamshedpur, Sindri Fertilizer Factory, Heavy Machine Tool Factory and Foundry Forge Project at Ranchi, a steel plant at Bokaro, an oil refinery at Barauni, Indian Aluminium Company at Muri (Ranchi), an explosives factory at Gomia and a paper factory at Dalmianagar are some of the major industrial ventures in the State. There are twenty-eight sugar factories, seven cement factories, seven distilleries, three jute mills, and one wagon-making unit.

Silk industry and handicrafts occupy important place amongst the cottage industries of Bihar. A spun silk mill in the public sector has been set up at Bhagalpur.

IRRIGATION AND POWER

Major irrigation projects in Bihar are on the rivers Kosi, Gandak, Badua, Chandan and Bagmati (under execution). Besides, there are a number of small and medium irrigation projects. The State shares the benefit of multipurpose Damodar Valley Project, in respect of power only, with West Bengal.

Major power projects are the Patratu Thermal Power Station, Subarnarekha Hydro-electric-*cum*-Irrigation Project, Barauni Thermal Power Station under Bihar State Electricity Board and Bokaro and Chandrapur Thermal Power Stations under the Damodar Valley Corporation.

The total installed capacity of power in November 1971 through the various hydel and thermal stations was 499 mw. The number of electrified villages in the State has increased from 4 in 1951 to 7,822 in 1971. For irrigation, the State had installed 65,908 pump sets/tubewells by March 1971 compared to 47 in 1951.

GOVERNMENT *Governor:* R.D. Bhandare

Council of Ministers* *Chief Minister:* Kedar Pandey.

Cabinet Ministers: D.P. Rai, A.Q. Ansari, L.P. Sahi, Chandra Sekhar Singh, Dr Jaganath Mishra, Smt. Ram Dulari Sinha, Lahton Chaudhary, Nursingh Baitha, Theodore Bodra, T. Muchi Roy Munda, Dr Ram Raj Singh and Rafique Alam.

Ministers of State: Budhdeo Singh, Ramesh Jha, Vishnu Shankar, Mishri Sada, Visham Narain Singh, Bihari Lakra, Radha Nandan Jha, Prithvi Chand Kisku, Taneshwar Azad, Nagina Rai, Smt. Biula Doza, Chunchun Pd. Yadav, Shivu Rajan Khan, Ramashray Pd. Singh, Dinesh Kumar Singh and Hemant Kumar Jha.

Deputy Ministers: Smt. Manorma Pande, Rambriksha Chaudhry, Sita Ram Prasad, Bandhu Mahto, Ram Deni Ram and Madan Prasad Singh.

Legislative Council* *Chairman:* Abdul Gafoor

Legislative Assembly* *Speaker:* Pandit Hari Nath Mishra

Deputy Speaker: Sakoor Ahmad

High Court** *Chief Justice:* U.N. Sinha

Judges: N.L. Untwalia, Shyamnandan Prasad Singh, Girija Nandan Prasad, Saiyid Anwar Ahmad, K.B. Narain Singh, S.P. Singh, B.D. Singh, A.N. Mukharji, C.P. Sinha, Syed Sarwar Ali, M.M. Prasad, Jitendra Narain, Syed Akbar Husain and S.P. Sinha.

Public Service Commission* *Chairman:* Jagat Nandan Sahay

Members: S.C. Tubid, D.P. Singh, H.N. Yadav and S.A.F. Abbas.

Chief Secretary: P.K.J. Menon

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Bhagalpur	5,656	20,91,103	Bhagalpur
2.	Champaran	9,196	35,43,103	Motihari
3.	Darbhanga	8,679	52,33,904	Darbhanga
4.	Dhanbad	2,994	14,66,417	Dhanbad
5.	Gaya	12,344	44,57,473	Gaya
6.	Hazaribagh	18,060	30,20,214	Hazaribagh
7.	Monghyr	9,827	38,92,609	Monghyr
8.	Muzaffarpur	7,838	48,40,681	Muzaffarpur
9.	Palamau	12,677	15,04,350	Daltonganj
10.	Patna	5,528	35,56,945	Patna
11.	Purnea	11,013	39,41,863	Purnea
12.	Ranchi	18,331	26,11,445	Ranchi
13.	Saharsa	5,885	23,50,268	Saharsa
14.	Santhal Parganas	14,129	31,86,908	Dumka
15.	Saran	6,952	42,79,253	Chapra
16.	Shahabad	11,320	39,39,034	Arrah
17.	Singhbhum	13,447	24,37,799	Chaibasa

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* As on 6 June 1972.

** As on 15 May 1972.

GUJARAT

Area: 1,95,984 sq. km
Population: 2,66,97,475
Capital: Gandhinagar
Principal language: Gujarati

AGRICULTURE

Irrigated area forms 11.19 per cent of the total cultivated area of Gujarat. The main food crops are bajra, jowar, rice and wheat. The important commercial crops are cotton, tobacco and groundnut. The production of foodgrains increased from 32.21 lakh tonnes in 1969-70 to 44.06 lakh tonnes in 1970-71, sugarcane (gur) and oilseeds from 1.87 lakh tonnes and 11.63 lakh tonnes to 1.94 lakh tonnes and 19.43 lakh tonnes respectively. The production of cotton increased from 15.52 lakh bales in 1969-70 to 15.71 lakh bales in 1970-71.

Forests cover nine per cent of the total geographical area of the State. The main forest products are teak, *khair*, *haldarvo*, bamboo, etc.

INDUSTRY

Textiles including ginning and pressing of cotton, tobacco manufacture, drugs and chemicals, engineering goods, machine tools, paper, cement and sugar are some of the important industries.

The discovery of oil and natural gas in Ankleshwar, Cambay and Kalol areas has put Gujarat on the world's oil map. The capacity of Gujarat Refinery at Koyali has expanded from 20 to 30 lakh tonnes a year.

Apart from cloth, readymade garments and synthetic fabrics, the State is exporting salt, drugs and pharmaceuticals, and electrical and engineering goods.

Gujarat Industrial Development Corporation (GIDC) and Gujarat Industrial Investment Corporation (GIIC) are actively assisting the industrialisation of the State.

IRRIGATION AND POWER

Important irrigation schemes implemented since Independence include Ukai, Kadana, Kakrapara, Mahi Right Bank Canal, Shetrunji, Dantivada and Hathmati Reservoir Project.

The total installed capacity of power by the end of 1970-71 was 862 mw through the various hydel and thermal stations, which is expected to be 1,607 mw by the end of the Fourth Plan. Gujarat had only 117 electrified villages in 1951 and the number increased to 4,087 by the end of 1970-71. For irrigation, the State had installed 1,52,000 pump sets by the end of 1970-71 compared to 2,460 in 1951.

GOVERNMENT

Governor: Shriman Narayan

Council of Ministers*

Chief Minister: Ghanshyambhai Chhotalal Oza

Cabinet Ministers: Ratubhai Mulshanker Adani, Kantilal Fulchand Ghiya, Chimanbhai Jivabhai Patel, Jashvantrai Nanubhai Mehta, Gordhandas Ranchhoddas Chokhawala, Dr Vasudev Natawarlal Tripathi and Sanatkumar Maganlal Mehta.

Deputy Ministers: Bhanuprasad Valjibhai Pandya, Ramjibhai Raghavji Thacker, Smt. Ayasha Mohmadali Shaikh, Prabodh Chimanlal Rawal, Amarsingh Bhilabhai Chaudhari, Somjibhai Punjabhai Damor and Jamnadas Samji Vekaria.

Legislative Assembly*

Speaker: Raghavji T. Leuva
Deputy Speaker: Rameshchandra Yukal Parmar

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* As on 9 June 1972.

High Court* *Chief Justice:* P.N. Bhagwati.
Judges: B.J. Diwan, J.B. Mehta, M.U. Shah, A.D. Desai, J.M. Sheth, D.A. Desai, S.N. Patel, S.H. Seth and D.P. Desai.
Additional Judges: M.P. Thakkar, T.U. Mehta, P.D. Desai, B.K. Mehta, A.A. Dave, C.V. Rane and A.N. Surti.

Public Service Commission** *Chairman:* Dr P.C. Vaidya
Member: M.R. Gehani

Chief Secretary: L.R. Dalal

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Ahmedabad	8,707	29,10,307	Ahmedabad
2. Amreli	6,760	8,48,730	Amreli
3. Banaskantha	12,702	12,65,383	Palanpur
4. Bharuch	9,045	11,09,601	Bharuch
5. Bhavnagar	11,155	14,05,285	Bhavnagar
6. Gandhinagar	649	200,642	Gandhinagar
7. Jamnagar	14,125	11,11,343	Jamnagar
8. Junagadh	10,607	16,56,677	Junagadh
9. Kheda	7,194	24,51,387	Kheda
10. Kutch	45,612	8,49,769	Kutch
11. Mahesana	9,027	20,92,468	Mahesana
12. Panchmahals	8,866	18,48,804	Godhra
13. Rajkot	11,203	16,24,072	Rajkot
14. Sabarkantha	7,390	11,87,637	Himatnagar
15. Surat	7,745	17,86,924	Surat
16. Surendranagar	10,488	8,45,454	Surendranagar
17. The Dangs	1,683	94,185	Ahwa
18. Vadodara	7,788	19,80,065	Vadodara
19. Valsad	5,238	14,28,742	Valsad

HARYANA

Area: 44,222 sq. km *Population:* 1,00,36,808
Capital: Chandigarh *Principal language:* Hindi

AGRICULTURE Over 89 per cent of the people of Haryana are engaged in agricultural pursuits. Irrigated area forms about 36 per cent of the total cultivated area of the State. The State is surplus in foodgrains, particularly rice, bajra, barley, gram and jowar. Other important crops are wheat, sugarcane, oilseeds and cotton. The production of foodgrains and oilseeds increased from 46.26 lakh tonnes and 0.89 lakh tonnes in 1969-70 to 47.33 lakh tonnes and 0.98 lakh tonnes respectively in 1970-71. The production of cotton increased from 3.4 lakh bales in 1969-70 to 3.5 lakh bales in 1970-71. The production of sugarcane (gur) was 6.98 lakh tonnes in 1970-71. Forests cover about three per cent of the total geographical area.

INDUSTRY The major industries of Haryana are cement, sugar, paper, cotton textiles, glassware, brassware, cycles, tractors, motor cycles, time-pieces, automobile tyres and tubes, sanitaryware and canvas shoes. Amongst the Central Government undertakings is Hindustan Machine Tools Factory located at Pinjore near Chandigarh.

Haryana is not endowed with minerals. The only minerals found in small quantities are limestone, slate and iron ore.

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* As on 15 May 1972. ** As on 9 June 1972

IRRIGATION AND POWER

Haryana is a beneficiary of the major irrigation projects of Punjab and Rajasthan. The only major project of the State is the Western Jamuna Canal. However, there are a number of medium irrigation and power projects. The total installed capacity of power in Haryana in November 1971 was 504 mw through various hydel and thermal stations. The number of electrified villages rose from nil in 1951 to all the 6,669 villages in March 1971 and thus it emerged as the first State in India to achieve 100 per cent village electrification. For irrigation, the State had installed 1,02,850 pump sets/tube-wells by 1970-71 compared to 743 in 1956.

GOVERNMENT

Governor: B.N. Chakravarty

Council of Ministers*

Chief Minister: Bansi Lal
Cabinet Ministers: Bhajan Lal, K.L. Poswal and Syham Chand.
Deputy Minister: Smt. Sharda Rani

Legislative Assembly*

Speaker: Banarsi Dass Gupta
Deputy Speaker: Smt. Lekhwati Jain

High Court**

Chief Justice: Harbans Singh
Judges: D.K. Mahajan, P.C. Pandit, Gurdev Singh, R.S. Narula, R.S. Sarkaria, Hans Raj Sodhi, Gopal Singh, Balraj Tuli, Anand Dev Koshal, S.S. Sandhanwalia, P.C. Jain, C.G. Suri, M.S. Gujral, S.C. Mital, D.S. Tewatia and B.S. Dhillon.
Additional Judges: N.L. Verma, Gurnam Singh, Mela Ram Sharma, Rajindra Nath Mittal and P.S. Pattar.

Public Service Commission*

Chairman: Darbari Lal Gupta
Members: Gopi Chand and Major-Gen. P. Budh Singh.

Chief Secretary: M.L. Batra

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Ambala	3,833	10,98,405	Ambala
2. Gurgaon	6,146	17,07,369	Gurgaon
3. Hissar	13,982	21,32,948	Hissar
4. Jind	2,691	6,39,610	Jind
5. Karnal	8,068	19,81,303	Karnal
6. Mahendragarh	3,459	6,91,639	Narnaul
7. Rohtak	6,043	17,85,534	Rohtak

HIMACHAL PRADESH

Area: 55,673 sq. km
Population: 34,60,434
Capital: Simla
Principal languages: Hindi and Pahari

AGRICULTURE

Agriculture and horticulture are the mainstay of Himachal Pradesh's economy, as 76 per cent of its people are engaged in these pursuits. Irrigated area forms only about 10.6 per cent of the net area sown. However, the agro-climatic conditions of the Pradesh are most suitable for growing a wide variety of fruits and cash crops like potato, ginger, vegetable seeds, etc. Wheat, maize and rice are the major crops. The production of foodgrains during 1970-71 was 9.35 lakh tonnes as against 9 lakh tonnes during 1969-70. The production of disease-free seed potato was 96,100 tonnes during 1970-71 as compared to 91,800 tonnes during 1969-70.

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* As on 18 May 1972.
**As on 15 May 1972. Haryana and Punjab have a common High Court.

Besides apples, the State also produces excellent variety of plums, peaches and apricots. The total fruit production during 1971-72 was about 1.78 lakh tonnes as against 1.49 lakh tonnes in 1970-71.

Forests occupy 38.5 per cent of the total area of the State. They are a potential source of revenue to the State exchequer as about one-third of the total revenue is earned from this source. The main forest products are timber, fuel wood, gums, resin, etc.

INDUSTRY

Though Himachal Pradesh is endowed with vast natural resources, cheap power and labour, a big hurdle in the way of industrialisation is that most of the areas are not easily accessible. Among major industries are Nahan Foundry, rosin and turpentine factories at Nahan and Bilaspur and the Mohan Meakin Breweries at Solan. A cement factory and a paper plant are also being set up. In the development of specialised and composite units in the small-scale sector, marked progress has been made in the production of items like microscopes, electric motors, watch parts, clinical and industrial thermometers, mono block pumps, and hospital and heating equipments, etc.

Among the indigenous village industries, mention may be made of sheep rearing, wood carving, weaving, etc. Important minerals of Himachal Pradesh are rock salt, slate, gypsum, limestone and barytes.

IRRIGATION AND POWER

There are no major irrigation projects in the State. Amongst important power projects at present in hand are (i) Giri Project in Sirmur district, (ii) Uhl Project in Mandi district, (iii) Baira-Siul Project in Chamba district, (iv) Kol Dam in Bilaspur district, and (v) Prabati Valley Hydel Project in Kulu district, etc.

By the end of September 1971, 4,162 towns and villages had been electrified.

GOVERNMENT

Governor: S. Chakravarti

Council of Ministers*

Chief Minister: Dr Y. S. Parmar
Cabinet Ministers: Ram Lal, Des Raj Mahajan, Lal Chand Prarthi and Dr Salig Ram.
Ministers of State: Hardial, Mansha Ram and Smt. Sarla Sharma.

Legislative Assembly*

Speaker: Kultar Chand Rana
Deputy Speaker: Lekh Ram

High Court**

Chief Justice: R.S. Pathak
Judges: D.B. Lal and Chet Ram Thakur.

Public Service Commission*

Chairman: Lt.-General K.S. Katoch
Members: P.C. Stokes and H.R. Mahajan.

Chief Secretary: K.N. Channa

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* As on 20 June 1972.
** As on 15 May 1972.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	Area (sq. km)	Population (1971 census)	Headquarters
1.	Mahasu	5,652	4,40,118	Kasumpti
2.	Mandi	4,018	5,15,180	Mandi
3.	Chamba	8,195	2,55,233	Chamba
4.	Sirmur	2,825	2,45,033	Nahan
5.	Bilaspur	1,167	1,94,786	Bilaspur
6.	Kinnaur	6,553	49,835	Kalpa
7.	Simla	1,416	2,17,129	Simla
8.	Kangra	8,397	13,27,211	Dharamsala
9.	Kulu	5,455	1,92,371	Kulu
10.	Lahaul and Spiti	12,015	23,538	Keylong

JAMMU AND KASHMIR

Area: 2,22,236* sq. km
Capital: Srinagar (Summer)
Jammu (Winter)
Population: 46,16,632**
Principal languages: Kashmiri, Ladakhi, Dogri, Balti, Dardi and Pahari
Official language: Urdu

AGRICULTURE

The economy of Jammu and Kashmir State is largely agrarian. More than 80 per cent of the population depends on agriculture for its livelihood. The total area under cultivation in the State is 8.10 lakh hectares, of which 3.16 lakh hectares are irrigated. The area under orchards has increased to 48,580 hectares in 1970-71 compared to 12,550 hectares in 1951. The main crops are rice, maize, wheat and barley. The production of foodgrains in 1970-71 was 10.81 lakh tonnes of which rice was 3.97 lakh tonnes, wheat 2.50 lakh tonnes, maize 3.66 lakh tonnes, pulses 38,000 tonnes and barley 10,000 tonnes.

INDUSTRY

There are 25 medium and large-scale industrial units in Jammu and Kashmir, of which 19 fall in public sector. The two State Corporations, namely, the J & K Minerals Ltd. and the J & K Industries Ltd. manage 18 of these units which include spinning mills, rosin and turpentine factory, silk weaving factories, woollen mills, joinery mills, match factory, bricks and tiles factory, cement factory, pre-stressed concrete factory and briquetting plant.

Sericulture is the major industry which produces 60,000 kg of raw silk annually and provides employment to 2,000 people in addition to 40,000 persons who get a subsidiary occupation by way of rearing cocoons.

New industries which are coming up in the State are Hindustan Machine Tools Watch Factory and ancillary factory of the Indian Telephone Industries Ltd., both at Srinagar.

Main cottage industries of the State are carpet and shawl making, engraved carpentry and handicrafts.

IRRIGATION AND POWER

Major irrigation schemes already completed in Jammu and Kashmir State are Kathua Canal and Pratap Canal which irrigate an area of 17,140 hectares. Another lift irrigation scheme at river Tawi has been included in the Fourth Plan which will irrigate 13,660 hectares.

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*Includes area under the illegal occupation of Pakistan and China.

**Excludes population of areas under illegal occupation of Pakistan and China.

Important power schemes implemented since Independence are Kalakot Thermal Project and Chenani Hydel Project (Ist phase). The power projects under implementation include Upper Sindh Project and Lower Jhelum Hydel Project. Besides, work on Salal Hydro-electric Project which has been taken over by the Central Government is also in progress. This project will cost Rs 55 crores and generate 270 mw by 1975-76.

The total installed capacity of power in the State at the end of Third Five Year Plan was 38 mw which is expected to be increased to 60 mw during the Fourth Plan.

The total number of villages so far electrified in the State is 900, as compared to nil in 1951.

GOVERNMENT *Governor:* Bhagwan Sahay

Council of Ministers*

Chief Minister: Syed Mir Qasim
Cabinet Ministers: G.L. Dogra, Trilochan Dutt and Mufti Mohammad Syed.
Minister of State: Abdul Gani Lone

Legislative Assembly* *Speaker:* Abdul Gani Goni

Legislative Council* *Acting Chairman:* C.L. Sharma

High Court**

Chief Justice: Murtaza Fazal Ali
Judges: Jaswant Singh, Mian Jalal-ud-Din and M. Baha-ud-Din Faroqui.
Additional Judge: Bakshi Ishwar Singh Chibbar

Public Service Commision*

Chairman: Amar Singh
Members: M. Habibullah Kamili, Dwarka Nath and Anwar Aftab.

Chief Secretary: N.K. Mukarji

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Anantnag (Kashmir South)	5,382	8,32,280	Anantnag
2.	Baramula (Kashmir North)	7,458	7,75,724	Baramula
3.	Doda	11,691	3,42,220	Doda
4.	Jammu	3,165	7,31,743	Jammu
5.	Kathua	2,651	2,74,671	Kathua
6.	Ladakh	95,876†	1,05,291	Leh
7.	Poonch	1,658	1,70,787	Poonch
8.	Rajouri	2,681	2,17,373	Rajouri
9.	Srinagar	3,013	8,27,697	Srinagar
10.	Udhampur	4,549	3,38,846	Udhampur

KERALA

Area: 38,864 sq. km — *Population:* 2,13,47,375
Capital: Trivandrum — *Principal language:* Malayalam

AGRICULTURE Irrigated area forms 20.5 per cent of the total cultivated area in Kerala. The State has abundance of cash crops. Cashew-nut, areca-nut, coconut, cotton, oilseeds, pepper, sugarcane, rubber, coffee, tea and cardamom are grown extensively. Paddy is the only important foodgrain cultivated in the State, while pulses are also grown in some areas. During 1969-70 to 1970-71, the production of rice increased from 12.26 lakh tonnes to 12.98 lakh tonnes, of cashew-nut from 1.11 lakh tonnes to 1.15 lakh tonnes, of coconut from 395.6 crore nuts to 398.1 crore nuts. The production of oilseeds was 23 lakh tonnes and of cotton 7,178 bales in 1970-71.

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*As on 29 July 1972.
**As on 15 May 1972.
†Includes area under the illegal occupation of China.

Forests occupy 27.4 per cent of the total area of the State. The forest wealth of Kerala consists of some well-known varieties of timber, such as teak, blackwood, ebony, softwood and rosewood which are highly priced in the export market.

INDUSTRY

Major industries of Kerala are rubber, tea, ceramics, electrical appliances, telephone cables, transformers, bricks and tiles, drugs and chemicals, soaps, oils and fertilizers.

In recent years, a number of important manufacturing units have sprung up for manufacturing precision instruments, machine tools, petroleum and petroleum products, fertilizers and allied products, paints, aluminium, rubber, rayon, pulp, papers, plywood and non-ferrous metals.

Important minerals found in the State are ilmenite, rutile, monazite, zircon, sillimanite and clays, quartz sand, lime shell, etc.

Kerala State Industrial Development Corporation and Kerala Financial Corporation provide financial assistance to private industries while the Plantation Corporation of Kerala helps the maintenance of rubber and oil palm plantations and in bringing in additional areas under cultivation.

The State has an important place as an earner of foreign exchange particularly dollar. Important export items are cashew-nut, tea, pepper and other spices, lemongrass oil, seafoods particularly shrimps, rosewood, coir and coir products and rubber products.

IRRIGATION AND POWER

Heavy rainfall and a large number of swift flowing rivers and streams possess considerable potentiality for hydro-electric generation. Important irrigation projects implemented since Independence include Periyar Valley, Neyyar, Meenkara, Kanhirapuzha, Kuttiadi, Malampuzha and Peechi. Important power projects are Panniar, Sholayar, Sabarigiri, Sengulam, Poringalkuthu, Neriamangalam and Idikki.

The total installed capacity of power as in November 1971 was 548 mw through the various hydel stations. Kerala had only 159 electrified villages in 1951, the number increased to 1,196 in 1971. For irrigation, the State had installed 23,448 pump sets/tube wells as on 31 March 1971 compared to 2,666 in 1961.

GOVERNMENT

Governor: V. Viswanathan

Council of Ministers*

Chief Minister: C. Achutha Menon
Cabinet Ministers: K. Karunakaran, Dr K.G. Adiyodi, K. Avukaderkutty Naha, Baby John, N.K. Balakrishnan, T.K. Divakaran, Vella Eacharan, M.N. Govindan Nair, C.H. Mohammed Koya, Paul P. Mani, Vakkom Purushothaman and T.V. Thomas.

Legislative Assembly*

Speaker: K. Moideenkutty Haji
Deputy Speaker: R.S. Unni

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* As on 29 May 1972.

High Court*

Chief Justice: T.C. Raghavan

Judges: P. Govindan Nair, V.P. Gopalan Nambiar, T.S. Krishnamoorthy Iyer, K. Sadasivan, M.U. Issac, V.B. Eradi, V.R. Krishna Iyer, P. Narayana Pillai, P.S. Poti, E.K. Moidu and P. Unnikrishna Kurup.

Additional Judges: K. Bhaskaran, V. Khalid, G. Vishwanatha Iyer and N.D.P. Namboodiripad.

Public Service Commission**

Chairman: M.K. Devassy

Members: V. Sreedharan Nair, T.M. Savankutty, K.U. Kunhikrishna Poduval, M.K. Kumaran, N. Kochukrishnan and K.A. Narayanan.

Chief Secretary: K.P.K. Menon

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area* (*sq. km*)	*Population* (1971 *Census*)	*Headquarters*
1.	Alleppey	1,884	21,25,722	Alleppey
2.	Cannanore	5,706	23,65,164	Cannanore
3.	Ernakulam	3,271	23,83,178	Ernakulam
4.	Kottayam	6,389	20,85,134	Kottayam
5.	Kozhikhode	3,729	21,06,249	Calicut
6.	Malappuram	3,638	18,56,362	Malappuram
7.	Palghat	4,400	16,85,342	Palghat
8.	Quilon	4,623	24,12,821	Quilon
9.	Trichur	3,032	21,28,797	Trichur
10.	Trivandrum	2,192	21,98,606	Trivandrum

MADHYA PRADESH

Area: 4,42,841 sq. km | *Population:* 4,16,54,119

Capital: Bhopal | *Principal language:* Hindi

AGRICULTURE

The economy of Madhya Pradesh is agriculture-based. Nearly 80 cent of the population lives in villages and agriculture is the main occupation of the people. Most of the agricultural area is rain-fed, the irrigated area being only 7.4 per cent of the total cultivated area. The cultivated area is over 35 per cent and forests cover nearly 30 per cent of the total area of the State. The State is surplus in all varieties of foodgrains and commercial crops. The main crops are jowar, wheat, rice and gram. Important among its commercial crops are oilseeds, cotton and sugarcane. The production of foodgrains went up to 108 lakh tonnes in 1970-71 as compared to 98 lakh tonnes in 1969-70. The production of sugarcane and oilseeds was 16.31 lakh and 5.32 lakh tonnes respectively during 1970-71. During the same period, the production of cotton was 2.14 lakh bales.

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*As on 15 May 1972. **As on 29 May 1972.

INDUSTRY

The south-eastern and eastern Madhya Pradesh is regarded as one of the richest mineral-bearing areas of the country—coal, iron ore, limestone, dolomite, bauxite and manganese ore being the principal desposits. During 1969, the total value of major mineral production in the State was Rs 57.69 crores.

Some of the major industries which have been established in various parts of the State are Bhilai Steel Plant and Heavy Electricals at Bhopal. At present, there are 19 textile mills in the State. The country's first and the only newsprint mill at Nepa Nagar has an annual capacity of 30,000 tonnes of newsprint. Other important industries include potteries, cement, biscuit manufacturing, engineering tools, rayon and art silk.

IRRIGATION AND POWER

Important irrigation projects of Madhya Pradesh are Chambal, Tawa, Hasdeo, Mahanadi and Barna. Nearly 22 medium irrigation projects have been completed during the three Five Year Plans. Nearly 18 lakh acres of additional area has been brought under irrigation during the three Plans. Madhya Pradesh has good potential of hydro-electric power generation. The total installed capacity of power in November 1971 was 761 mw through the various hydel and thermal stations. Madhya Pradesh had only nine electrified villages in 1951 and the number increased to 6,269 in October 1971. The total number of irrigation pumps energised was 1.2 lakh up to March 1972.

GOVERNMENT

Governor: Satyanarayan Sinha

Council of Ministers*

Chief Minister: P.C. Sethi

Cabinet Ministers: V.R. Uikey, K.L. Shukla, C.P. Tiwari and S.S.N. Mushran.

Ministers of State: A.C. Chhajed, Kum. Vimla Verma, Tumanlal and Ran Vijaya Pratap Singh.

Deputy Minister: Umrao Singh

Legislative Assembly

Speaker: Tejlal Tembhre
Deputy Speaker: N.P. Shukla

High Court**

Chief Justice: Bishambhar Dayal

Judges: P.K. Tare, S.P. Shrivastava, S.B. Sen, S.P. Bhargava, R.J. Bhave, A.P. Sen, G.P. Singh, S.M.N. Raina, G.J. Oza, S.R. Vyas, K.K. Dubey and N.C. Dwivedi.

Public Service Commission*

Chairman: K.C. Tiwari

Members: D.D. Kurre, M.A. Khan, S.H. Aole and R.K. Singh.

Chief Secretary: R.P. Malik

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* As on 6 July 1972.

** As on 15 May 1972.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Balaghat	9,245	9,77,583	Balaghat
2. Bastar	39,060	15,15,956	Jagdalpur
3. Betul	10,061	7,36,196	Betul
4. Bhind	4,467	7,93,955	Bhind
5. Bilaspur	19,905	24,40,962	Bilaspur
6. Chhatarpur	8,690	7,12,385	Chhatarpur
7. Chhindwara	11,824	9,89,413	Chhindwara
8. Damoh	7,301	5,73,263	Damoh
9. Datia	2,034	2,55,267	Datia
10. Dewas	7,014	5,94,336	Dewas
11. Dhar	8,149	8,42,400	Dhar
12. Durg	19,670	24,61,901	Durg
13. Guna	11,017	7,83,748	Guna
14. Gwalior	5,213	8,58,005	Gwalior
15. Hoshangabad	10,016	8,05,870	Hoshangabad
16. Indore	3,910	10,25,150	Indore
17. Jabalpur	10,164	16,86,030	Jabalpur
18. Jhabua	6,781	6,67,811	Jhabua
19. Mandsaur	9,726	9,61,522	Mandsaur
20. Mandla	13,257	8,73,577	Mandla
21. Morena	11,586	9,85,338	Morena
22. Narsimhapur	5,138	5,19,270	Narsimhapur
23. Khandwa (East Nimar)	10,705	8,79,331	Khandwa
24. Khargone (West Nimar)	13,441	12,84,812	Khargone
25. Panna	7,122	4,29,077	Panna
26. Raigarh	12,910	12,78,705	Raigarh
27. Raipur	21,251	26,13,531	Raipur
28. Raisen	8,395	5,53,026	Raisen
29. Rajgarh	6,163	6,44,346	Rajgarh
30. Ratlam	4,859	6,26,534	Ratlam
31. Rewa	6,315	9,77,894	Rewa
32. Sagar	10,246	10,62,291	Sagar
33. Satna	7,495	9,13,531	Satna
34. Sehore	9,015	10,84,933	Sehore
35. Seoni	8,752	6,68,352	Seoni
36. Shahdol	14,028	10,29,839	Shahdol
37. Shajapur	6,201	6,78,359	Shajapur
38. Shivpuri	10,285	6,76,567	Shivpuri
39. Sidhi	10,532	7,76,786	Sidhi
40. Surguja	22,337	13,26,439	Ambikapur
41. Tikamgarh	5,047	5,68,885	Tikamgarh
42. Ujjain	6,081	8,62,516	Ujjain
43. Vidisha	7,433	6,58,427	Vidisha

MAHARASHTRA

Area: 3,07,762 sq.km
Population: 5,04,12,235
Capital: Bombay
Principal language: Marathi

AGRICULTURE

About 70 per cent of the people in Maharashtra are dependent on agriculture. Irrigated area forms only about 8.3 per cent of the total cropped area of the State. The principal food crops are wheat, rice, jowar, maize, bajra and pulses. The total production of foodgrains during 1969-70, 1970-71 and 1971-72 was 64.9 lakh tonnes, 54.6 lakh tonnes and 48.9 lakh tonnes respectively. Important cash crops are cotton, oilseeds, sugarcane, groundnut and tobacco. The production during these three years was: sugarcane (gur) 16.2 lakh tonnes, 16.8 lakh tonnes and 12.7 lakh tonnes; cotton 12.1 lakh bales, 4.8 lakh bales and 12.7 lakh bales and groundnut 5.8 lakh tonnes, 6 lakh tonnes and 4.7 lakh tonnes respectively.

INDUSTRY

Maharashtra is endowed with sizeable deposits of iron ore, coal, manganese ore, bauxite and limestone. Manganese ore in Vidarbha region has enabled the State to develop the ferro-manganese industry. Cement factories have come up due to the availability of limestone.

Maharashtra has a number of large-scale industries which include textiles including ginning and pressing, silk, rayon, synthetic fabrics and vegetable products. Most of the textile mills are located in Bombay. Maharashtra is also a major sugar-producing State of India. Important chemical industries include nitrogenous fertilizers, superphosphates, heavy chemicals, drugs and pharmaceuticals and photographic chemicals.

Various types of engineering goods, such as machine tools, steel and malleable iron castings, welding electrodes, ball-bearings and agricultural implements are manufactured for domestic consumption as well as for exports. Maharashtra leads in motion picture industry which plays a vital role in the economy of the State. Aarey Milk Supply Scheme is one of the largest in the country. There is a good scope for petro-chemical industries coming up in the neighbourhood of the two oil refineries. A number of defence and public sector industries have also been located in the State.

IRRIGATION AND POWER

Important irrigation schemes implemented since Independence include Gangapur, Ghod, Girna, Khadakvasla (Panshet), Mula, Vir, Purna, Manar, Bagh Itiadoh, Bor, Nalganga and Katepurna Projects. The major power projects are Koyna Hydro-electric Project and Purna Hydro-electric Project.

The total installed capacity of power in March 1972 was 2,067 mw through various hydel, thermal and diesel stations. This is expected to be 2,337 mw by the end of the Fourth Plan. Maharashtra had only 38 electrified villages in 1951, the number increased to 12,752 in March 1971. For irrigation, the State had installed 2,10,297 pump sets/tubewells by 31 March 1971, compared to 142 in 1951.

GOVERNMENT

Governor: Ali Yawar Jung

Council of Ministers*

Chief Minister: V.P. Naik
Cabinet Ministers: Vasantrao B. Patil, S.B. Chavan, M.D. Chaudhari, N.M. Tidke, Dr Rafiq Zakaria, Y.J. Mohite, H.G. Vartak, A.R. Antulay, Smt. Pratibha Patil, A.N. Namjoshi and Dr M.B. Popat.
Ministers of State: K.P. Patil, S.B. Patil, S.A. Solanke, Sharad Pawar, R.J. Deotale, Smt. Prabha Rau, G.S. Sarnayak and D.T. Rupavate.
Deputy Minister: Ramu Patel

Legislative Council*

Chairman: V.S. Page
Deputy Chairman: R.S. Gavai

Legislative Assembly*

Speaker: S.K. Wankhede
Deputy Speaker: R.V. Bet

High Court**

Chief Justice: S.P. Kotval
Judges: K.K. Desai, Y.V. Chandrachud, R.M. Kantawala, V.D. Tulzapurkar, B. N. Deshmukh, D. B. Padhye, J. R. Vimadalal,

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* As on 2 June 1972.

** As on 15 May 1972.

V.S. Deshpande, N.P. Nathwani, J.L. Nain, D.P. Madon, M.N. Chandurkar, M.S. Apte, R.R. Bhole, G.N. Vaidya, N.D.Kamat, S.B. Bhasme, M.H. Kania and S.K. Desai.
Additional Judges: S.M. Hajarnavis, P.S. Mavlankar and R.K. Joshi.

Public Service Commission*

Chairman: Dr D.Y. Gohokar
Members: S.B. Chavan, Dr N.N. Wankhade, S.N.A. Razvi and V.K. Chaudhary.

Chief Secretary: L.G. Rajwade

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Ahmednagar	17,035	22,69,117	Ahmednagar
2. Akola	10,567	15,01,478	Akola
3. Amravati	12,210	15,41,209	Amravati
4. Aurangabad	16,200	19,71,006	Aurangabad
5. Bhandara	9,214	15,85,580	Bhandara
6. Bhir	11,227	12,86,121	Bhir
7. Greater Bombay	603	59,70,575	Bombay
8. Buldana	9,745	12,62,978	Buldana
9. Chandrapur	25,641	16,40,137	Chandrapur
10. Dhulia	13,143	16,62,181	Dhulia
11. Jalgaon	11,771	21,23,121	Jalgaon
12. Kolaba	7,198	12,63,003	Alibagh
13. Kolhapur	8,059	20,48,049	Kolhapur
14. Nagpur	9,928	19,42,688	Nagpur
15. Nanded	10,492	13,97,762	Nanded
16. Nasik	15,582	23,69,221	Nasik
17. Osmanabad	14,117	18,96,687	Osmanabad
18. Parbhani	12,489	15,06,771	Parbhani
19. Poona	15,640	31,78,029	Poona
20. Ratnagiri	13,040	19,90,583	Ratnagiri
21. Sangli	8,563	15,39,820	Sangli
22. Satara	10,492	17,27,376	Satara
23. Sholapur	15,021	22,53,840	Sholapur
24. Thana	9,553	22,81,664	Thana
25. Wardha	6,307	7,79,562	Wardha
26. Yeotmal	13,925	14,23,677	Yeotmal

MANIPUR**

Area: 22,356 sq. km
Population: 10,72,753
Capital: Imphal
Principal language: Manipuri

AGRICULTURE

The main occupation of 66 per cent of the population of Manipur is agriculture. Gross irrigated area covers about 3,900 hectares. Both reserve and protected forests cover about 60 per cent of the total area. Forest reserves are being developed by planting better species of timber. Bamboo is found in large quantities. Main crop is paddy while wheat and maize are also grown in some areas. Orchards are also being set up. The production of foodgrains increased from 2.22 lakh tonnes in 1969-70 to 2.25 lakh tonnes in 1970-71.

INDUSTRY

Manipur has no large-scale industries at present. Handloom weaving is the largest single cottage industry. Other cottage industries are sericulture, bamboo and cane articles, carpentry, blacksmithy and leather goods, edible oil crushing and rice milling. A khandsari sugar factory is under construction which will go into production shortly.

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* As on 2 June 1972.

** The full-fledged State of Manipur was inaugurated on 21 January 1972 as a result of the North-Eastern Areas (Reorganisation)Act, 1971.

IRRIGATION AND POWER Irrigation is done through minor irrigation works by constructing weirs across running streams for better distribution of water during the monsoons.

The total installed capacity of power in November 1971 was 3.46 mw through the various hydel and thermal stations. This is expected to be 10.51 mw by the end of the Fourth Plan. Manipur had only nine electrified villages before the First Plan; the number had increased to 188 by March 1971.

GOVERNMENT *Governor:* B.K. Nehru

Council of Ministers*

Chief Minister: Alimuddin

Cabinet Ministers: Yumnam Yaima Singh, Kh. Chaoba, Yangmaso Saiza and Ngurdinglien.

Ministers of State: L. Maanobi, K. Envey, T.P. Kiulengpao and Y. Nimai Singh.

Deputy Ministers: N. Nilmani Singh, N.T. Thungam and R. Vio.

Legislative Assembly*

Speaker: Dr. L. Chandramani Singh

Deputy Speaker: Vacant

High Court The jurisdiction of Gauhati High Court extends over Manipur. For list of judges, see under Assam.

Chief Secretary: S.M. Krishnatry

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Manipur North	3,417	1,04,175	Karong
2.	Manipur West	4,344	44,975	Tamenglong
3.	Manipur South	4,581	98,114	Churachandpur
4.	Manipur Central	5,605	7,63,260	Imphal
5.	Manipur East	4,409	62,229	Ukhrul

MEGHALAYA**

Area: 22,489 sq. km
Capital: Shillong
Population: 10,11,699
Principal languages: Khasi, Jaintia and Garo

AGRICULTURE Over 80 per cent of the people of Meghalaya are engaged in agricultural pursuits. Irrigated area is about 27 per cent of the cultivated area. The principal crops are potatoes, *tezpata*, sugarcane, oilseeds, cotton, jute, *mesta*, tobacco and areca-nut. Selected areas have been earmarked for growing high-yielding varieties of paddy, wheat and maize. In the United Khasi and Jaintia Hills fruits and vegetables are also grown and special programmes have been undertaken to develop horticulture. The production of foodgrains and oilseeds increased from 1,17,860 and 2,320 tonnes in 1969-70 to 1,23,700 and 2,340 tonnes respectively in 1970-71. During the same period the production of cotton and jute increased from 3,580 and 49,030 bales to 3,600 and 50,000 bales respectively. Production of *mesta* during 1970-71 was 2,310 bales, while that of tobacco, areca-nut and sugarcane was 230, 3,910 and 210 tonnes respectively.

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*As on 24 May 1972.

**Meghalaya became a full-fledged State on 21 January 1972 as a result of the North-Eastern Areas (Reorganisation) Act, 1971.

Forests and forest products are the chief resources of the State. Economic plantations of industrial and commercial use are being undertaken extensively.

INDUSTRY

The mineral wealth of the United Khasi and Jaintia Hills district includes coal, sillimanite, limestone, white clay and corundum. Ninety-five per cent of India's total output of sillimanite is produced in this district. Garo Hills district has deposits of coal, limestone, fire clay and light coloured sandstone.

In the organised sector, the main industrial unit in the State is the cement factory at Cherrapunjee. The State Industrial Development Corporation, set up in 1970-71 with an initial paid-up capital of Rs 16.22 lakhs, helps in the development of the large and medium industries and looks after the small-scale industries.

IRRIGATION AND POWER

The State Government is contemplating to take up minor irrigation works in the Fourth Plan. Lift irrigation will get priority under the minor irrigation schemes. The present installed capacity of power is 11.61 mw. The State had electrified 59 villages up to 1971. For irrigation, the State had installed 100 pump-sets by 31 March 1971.

GOVERNMENT

Governor: B.K. Nehru

Council of Ministers*

Chief Minister: Capt. W.A. Sangma
Cabinet Ministers: B.B. Lyngdoh, Stanley D.D. Nichols Roy, Edwingson Bareh and Standford K. Marak.
Ministers of State: Darwin D. Pugh and Grohonsing Marak.

Legislative Assembly*

Speaker: R.S. Lyngdoh

High Court

The jurisdition of Gauhati High Court extends over Maghalaya. For list of judges, see under Assam.

Chief Secretary: N.K. Rustomji

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*		*Population (1971 census)*	*Headquarters*
1. Jaintia Hills	3,863	14,405	6,05,084	Shillong
2. Khasi Hills	10,529			
3. Shillong	13			
4. Garo Hills	8,084		4,06,615	Tura

MYSORE

Area: 1,91,773 sq. km
Capital: Bangalore
Population: 2,92,99,014
Principal language: Kannada

AGRICULTURE

Mysore State is predominantly agricultural. Of the total cultivated area of the State more than 12 per cent is irrigated. The most important food crop grown is rice, while wheat, millets and pulses are also grown extensively. The main cash crops are sugarcane, cotton, oilseeds, tobacco, coconut, coffee, cashew, cardamom, pepper and oranges. The production of foodgrains during 1971-72 was 60.64 lakh tonnes, of sugarcane 87.76 lakh tonnes, of oilseeds 7.01 lakh tonnes and of cotton 5.69 lakh bales.

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* As on 10 July 1972.

Forests cover 16 per cent of the total area of the State. Sandalwood and bamboo form the major forest products. Other forest products are high quality teak, shipment quality rosewood, soft-wood suitable for industrial purposes and other valuable timbers. Experiments to grow rubber, red oil palm, cocoa and similar exotic forest crops are under way.

INDUSTRY

Mysore has a number of basic industries engaged in the manufacture of a special type of steel, machine tools, aircraft, electronic and electrical goods and telecommunication equipment. The State-owned Mysore Iron & Steel Ltd. produces a special kind of steel. Other flourishing industries are textiles, sugar, chemical and pharmaceutical goods, cement, glass, ceramics and porcelain.

Mysore produces some very special types of silks which are well known both in India and abroad. The State is rich in mineral resources. Important among them are high grade iron ore, manganese, chromite, copper and china clay. Mysore is the only State where gold mining is carried on.

IRRIGATION AND POWER

Mysore has two large river basins of the Krishna and the Cauveri, besides a number of other rivers used both for irrigation and power production. The important irrigation schemes are Tungabhadra, Ghataprabha, Upper Krishna, Bhadra, Kalinadi, Harangi and Hemavathi. The major power projects are Sharavati Hydro-electric Project, Jog and the power project at Kalinadi now under construction. After the completion of the first phase of Kalinadi Project in 1976-77, the installed capacity is likely to be 1,101 mw.

The number of electrified villages increased to 12,653 covering 65 per cent of the total population of the State by the end of March 1972, compared to 551 such villages in 1951. For irrigation, 1,49,622 wells have been energised by 31 March 1972.

GOVERNMENT

Governor: Mohan Lal Sukhadia

Council of Ministers*

Chief Minister: D. Devaraj Urs

Cabinet Ministers: H.M. Channabasappa, H.Siddaveerappa, B. Basavalingappa, M. Mallikarjuna Swamy, A.R. Badarinarayana, A. Shankara Alva, N. Hutchamasthy Gowda, Azeez Sait, Patil Krisnagouda Hanamantagouda, M.Y. Ghorpade, S.M. Krishna and Naikar Dyamappa Kalappa.

Ministers of State: N. Chikke Gowda, H.N. Nanjegowda, Smt. E.E. Vaz, K.T. Rathod, Nagaral Sangappa Balappa, Koujalgi Veeranna Shivalingappa, Shivanna Bheemappa, Kittur Raghunath Dhulappa and Devendrappa Ghalappa.

Legislative Council

Chairman: S.D. Gaonkar

Deputy Chairman: T.N. Narasimha Murthay

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*As on 11 July 1972.

Legislative Assembly*

Speaker: Smt. K.S. Nagarathnamma
Deputy Speaker: B.P. Kadam

High Court**

Chief Justice: A. Narayana Pai
Judges: Ahmed Ali Khan, G.K. Govinda Bhat, D.M. Chandrashekhar, M. Santosh, Closepet Honniah, Koratagere Bhimiah, Byanna Venkataswami, M. Sadananda Swamy, D. Noronha, V.S. Malimath, S.R. Range Gowda, E.S. Venkataramaiah and Jagannatha Shetty.
Additional Judges: M.S. Nesargi and H.B. Datar.

Public Service Commission*

Chairman: R.V. Bidap
Members: M.S. Swaminathan, V. Hanumanthappa, T. Reuben and V. Byrappa.

Chief Secretary: R.J. Rebello

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Bangalore	8,003	33,65,515	Bangalore
2. Belgaum	13,410	24,23,342	Belgaum
3. Bellary	9,898	11,22,686	Bellary
4. Bijapur	17,056	19,85,591	Bijapur
5. Bidar	5,451	824,059	Bidar
6. Chikmagalur	7,199	736,647	Chikmagalur
7. Chitradurga	10,852	13,97,456	Chitradurga
8. Coorg	4,104	378,291	Mercara
9. Dharwar	13,749	23,42,213	Dharwar
10. Gulbarga	16,224	17,39,220	Gulbarga
11. Hassan	6,823	11,02,370	Hassan
12. Kolar	8,223	15,16,646	Kolar
13. Mandya	4,958	11,54,374	Mandya
14. Mysore	11,947	20,77,238	Mysore
15. North Kanara	10,276	849,105	Karwar
16. Raichur	14,005	14,15,740	Raichur
17. Shimoga	10,548	13,01,485	Shimoga
18. South Kanara	8,441	19,39,315	Mangalore
19. Tumkur	10,606	16,27,721	Tumkur

NAGALAND

Area: 16,527 sq. km *Population:* 5,16,449
Capital: Kohima

AGRICULTURE

Agriculture is the main occupation of the 80 per cent population of Nagaland. Rice is the only important foodgrain grown in the State. The total production of rice increased to 74,300 tonnes during 1970-71 as compared to 49,800 tonnes during 1969-70. The total cropped area under rice during 1970-71 was 67,000 hectares.

Forests cover 17.6 per cent of the total geographical area of the State and they contribute considerably to the revenue of the State.

INDUSTRY

Handloom, weaving and sericulture are the prominent cottage industries in Nagaland. There are three weaving-*cum*-production centres, three cottage industries-*cum*-production centres, three sericulture farms, one handicraft training-*cum*-production centre and one small-scale industries service centre.

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* As on 11 July 1972. ** As on 15 May 1972.

IRRIGATION AND POWER

Minor irrigation works in the State are mostly confined to the diversion of small hill streamlets to irrigate the valleys used for rice cultivation.

At present the total installed capacity of power is 7.3 mw. Out of 814 villages in Nagaland, the number of electrified villages and towns is 82, compared to nil in 1951.

GOVERNMENT

Governor: B.K. Nehru

Council of Ministers*

Chief Minister: Hokishe Sema
Cabinet Ministers: R.C. Chiten Jamir, Jasokie, T. Kikon, Chingwang Konyak and N. Theyo.
Ministers of State: N.L. Odyuo, Ihezhe Sema, Koramoa Jamir, Riga Thong and Tochi Hanso.
Deputy Ministers: Zulutemba Ao and Nihovi Sema.

Legislative Assembly**

Speaker: K. Shikhu
Deputy Speaker: T.A. Ngullie

High Court

The jurisdiction of Gauhati High Court extends over the State of Nagaland. For list of judges, see under Assam.

Public Service Commission*

Chairman: Smt. B. Khongimen
Member: J. Hangshing

Chief Secretary: L. Lungalang

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Kohima	7,209	1,75,204	Kohima
2.	Mokokchung	3,852	1,68,242	Mokokchung
3.	Tuensang	5,466	1,73,003	Tuensang

ORISSA

Area: 1,55,842 sq. km
Population: 2,19,44,615
Capital: Bhubaneswar
Principal language: Oriya

AGRICULTURE

Over 80 per cent of the people in Orissa are dependent on agriculture. Out of the total cropped area of 67·44 lakh hectares, 13·90 lakh hectares are irrigated. Rice is the most important crop and the State contributes about one-tenth of the rice produced in India. Other important crops are pulses, oilseeds, jute, *mesta*, sugarcane, coconut and turmeric. During 1970-71 the production of foodgrains was 51·04 lakh tonnes including 43·41 lakh tonnes of rice which constituted 85 per cent of the total foodgrains. The production of oilseeds, sugarcane (gur) and jute was 1·98 lakh tonnes, 1·91 lakh tonnes and 3·27 lakh bales respectively. During 1971-72, foodgrains production target was 60 lakh tonnes but the actual production was 42·75 lakh tonnes due to natural calamities prevailing during the year. The production of sugarcane, oilseeds and jute was 2·47 lakh tonnes, 2·16 lakh tonnes and 3·79 lakh bales respectively.

Forests cover 67 lakh hectares which is a little more than 43 per cent of the total geographical area of the State. Timbers of different varieties like *sal*, teak, asan, *kurum*, peasal, bamboo, firewood, *kendu* leaves and other forest produce yield good revenue to the State exchequer. Lac, tusser and medicinal plants like nux vomica and rauwolfia serpentina are available from certain forests. Seeds of *sal* which are available in abundance have recently become an economic product of the forests.

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* As on 15 May 1972.

** As on 1 May 1972.

INDUSTRY

There were very few big industries in Orissa before Independence. However, after Independence 35 large industries have been set up both in the public and private sectors. Most of these industries are mineral-based, the principal among which are the steel plant of Hindustan Steel Ltd. at Rourkela, a pig iron plant at Barbil and a ferrochrome plant at Jajpur Road, both owned by the Industrial Development Corporation of Orissa, two ferro-manganese plants, one at Joda and the other at Jeypore, one ferro-silicon plant at Theruvelli and an aluminium smelter plant at Hirakud. The other mineral-based industries are three refractory plants at Belpahar, Rajgangpur and Latikata, and two cement plants, one at Bargarh and the other at Rajgangpur.

There are three large paper mills in the State at Rayagada, Choudwar and Brajarajnagar. The Hindustan Steel Ltd. has also a fertilizer plant at Rourkela. Other chemical industries are a caustic soda plant and a salt manufacturing unit at Ganjam and an industrial explosive plant at Rourkela.

Other industries of importance are two large sugar plants, one at Rayagada and the other at Aska, the latter coming under the co-operative sector; a glass works at Barang, an aluminium cable plant at Hirakud, an aluminium conductor and rod making unit at Hirakud, a large fabrication unit at Hirakud, a heavy machine tool plant at Kansbahal, a refrigerator manufacturing unit at Choudwar, a re-rolling mill at Hirakud and three textile mills at Choudwar, Jharsuguda and Bargarh, the last one in the co-operative sector.

Orissa is a leading producer of iron ore in the country and the ore's iron content is mostly 60 per cent and above. The Rourkela Plant and the Tata Iron and Steel Co. depend upon Orissa's ore. The State is one of the largest producers of manganese ore and about 20 per cent of the country's production is from this State. Orissa is a store house of valuable minerals. The principal amongst them are limestone and dolomite, chromite, non-coking coal, bauxite, graphite, china clay, nickel and gallena, etc.

The National Mineral Development Corporation of India have established the Kiriburu Iron Project near Bonal mines with a view to exporting 20 lakh tonnes of iron ore per annum. The State Government have also established the Orissa Mining Corporation for exploitation of the mineral wealth of the State.

IRRIGATION AND POWER

Irrigation facilities in the State expanded considerably after Independence. This is evident from water reservoirs under the Hirakud Dam Project, the Rushikulya Project, the Salandi Project, the Delta Irrigation Project and 12 other medium irrigation projects. Besides, a systematic programme for investigation of 87 major and medium irrigation projects has been drawn up to provide irrigation facilities to backward and drought affected areas.

The Hirakud Dam Project is a multi-purpose river valley project with the objectives of power generation, flood control, navigation and irrigation. Balimela Dam, Machhkund and Talcher thermal stations are other important power projects.

The total installed capacity of power through various hydel and thermal stations in November 1971 was 560 mw. This is expected to be 920 mw by the end of the Fourth Plan. Orissa had 25 electrified villages in 1955-56, the number increased to 4,162 in 1971-72. For irrigation, the State had installed 418 lift irrigation points by March 1971. During 1971-72, 207 more lift irrigation points have been energised.

GOVERNMENT *Governor:* B. D. Jatti

Council of Ministers* *Chief Minister:* Smt. Nandini Satpathy
Cabinet Ministers: Nilamani Routray, Brajamohan Mohanty, Binayak Acharya, Banka Bihari Das, Gangadhar Pradhan and Lakshman Mallick.

Legislative Assembly** *Speaker:* Nanda Kishore Mishra
Deputy Speaker: Narayan Birabar Samant

High Court† *Chief Justice:* G.K. Misra
Judges: Sukanta Kishore Ray, Bala Krushna Patra, Sachchidananda Acharya, Ranganath Misra, B.K. Ray and K.B. Panda

Public Service Commission** *Chairman:* Chintamani Mahapatra
Members: Saroj Kumar Patra and Rabindranath Das.

Chief Secretary: G.C.L. Joneja

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Balasore	6,394	18,30,504	Balasore
2.	Baudh-Khondmals	11,070	6,21,675	Phulbani
3.	Bolangir	8,903	12,63,657	Bolangir
4.	Cuttack	11,211	38,27,678	Cuttack
5.	Dhenkanal	10,826	12,93,914	Dhenkanal
6.	Ganjam	12,527	22,93,808	Chhatrapur
7.	Kalahandi	11,835	11,63,869	Bhawanipatna
8.	Keonjhar	8,240	9,55,514	Keonjhar
9.	Koraput	27,020	20,43,281	Koraput
10.	Mayurbhanj	10,412	14,34,200	Baripada
11.	Puri	10,159	23,40,859	Puri
12.	Sambalpur	17,570	18,44,898	Sambalpur
13.	Sundargarh	9,675	10,30,758	Sundargarh

PUNJAB

Area: 50,362 sq. km
Capital: Chandigarh
Population: 1,35,51,060
Principal language: Punjabi

AGRICULTURE About 76 per cent of the total population of Punjab is engaged in agricultural pursuits. The irrigated area is 28.88 lakh hectares or over 71 per cent of the total cultivated area of 40.53 lakh hectares. The State is surplus in foodgrains, especially, wheat and rice. Main foodgrains, besides wheat and rice are maize, bajra, jowar, gram, barley and pulses. Major cash crops are oilseeds, sugarcane, tobacco, cotton and potatoes. The production of foodgrains increased from 69.37 lakh tonnes in 1969-70 to 73.05 lakh tonnes in 1970-71. The production of sugarcane and oilseeds was 5.27 and 2.43 lakh tonnes in 1970-71. During the same period, the production of cotton increased from 8.02 lakh bales to 8.19 lakh bales.

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*As on 14 June 1972. The Assembly was dissolved and the State came under President's rule on 3 March 1973.

**As on 1 July 1972.

†As on 15 May 1972.

Forests cover an area of 2,11,128 hectares or 4.20 per cent of the total area of the State.

INDUSTRY

Punjab produces 90 per cent of country's woollen hosiery. The industry is now a major foreign exchange earner. During 1970-71 hosiery goods worth Rs 12 crores were exported. Sericulture, footwear, machine tools, bicycle parts, sewing machines and parts, plastic goods, pipes, nuts and bolts, wood and machine screws, etc., are some of the important cottage industries.

Nangal Fertilizer Factory is a major Central Government undertaking in the State.

The Punjab State Industrial Development Corporation, the Punjab State Financial Corporation and the Punjab State Small Industries Corporation actively assist the growth and development of industries in the State. Some of the important industries being established through the efforts of the Industrial Development Corporation include Swaraj Tractors, Toshiba Anand Batteries, polyester fibres and steel balls.

IRRIGATION AND POWER

Important irrigation works implemented since Independence are the Bhakra Dam, Bhakra canals, Harike Barrage with a new lined canal called Sirhind Feeder and remodelling of Madhopur Headworks into a barrage. Madhopur-Beas link was constructed to transfer the surplus water of river Ravi to river Beas. A similar project, the Sutlej-Beas Link Project is in an advanced stage of construction. Pong Dam on river Beas is an important hydro-electric project which is under construction. Guru Nanak Thermal Power Plant at Bhatinda is another important power project undertaken by the State Government. Another hydro-electric project, Thein Dam has also been cleared for the State, which will add to the irrigation and power potential in this area. One of the major power projects is the Upper Bari Doab Canal Hydel Scheme.

The total installed capacity in November 1971 through the various hydel and thermal stations was 680 mw which is expected to be 950 mw by the end of the Fourth Plan. Punjab had only 25 electrified towns/villages in 1956; the number had increased to 6,912 in 1971. For irrigation, the State had installed 98,569 pump sets/tube-wells as on 31 March 1971 compared to 3,095 in 1956.

GOVERNMENT

Governor: Dr D.C. Pavate

Council of Ministers*

Chief Minister: Giani Zail Singh
Cabinet Ministers: Captain Rattan Singh, Umrao Singh, Hans Raj Sharma and Gurmail Singh.
Ministers of State: Gian Chand Kharbanda and Joginder Paul Pandey.
Deputy Ministers: Nasib Singh Gill, Santokh Singh Randhawa and Kum. Sarla Parashar.

Legislative Assembly*

Speaker: Darbara Singh
Deputy Speaker: Kewal Krishan

High Court

Punjab and Haryana have a common High Court. For list of Judges, see under Haryana.

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* As on 6 June 1972.

Public Service Commission*

Chairman: Kuldip Singh Virk
Members: Mubarak Singh, Des Raj, Brig. N.K. Lall, Smt. Krishna Azad and Lal Singh.

Chief Secretary: R.S. Talwar

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Amritsar	5,088	18,35,500	Amritsar
2.	Bhatinda	7,022	13,18,134	Bhatinda
3.	Ferozepur	10,145	19,05,833	Ferozepur
4.	Gurdaspur	3,560	12,29,249	Gurdaspur
5.	Hoshiarpur	3,883	10,52,153	Hoshiarpur
6.	Jullundur	3,399	14,54,501	Jullundur
7.	Kapurthala	1,633	4,29,514	Kapurthala
8.	Ludhiana	3,857	14,19,421	Ludhiana
9.	Patiala	4,583	12,15,100	Patiala
10.	Ropar	2,085	5,45,005	Ropar
11.	Sangrur	5,107	11,46,650	Sangrur

RAJASTHAN

Area: 3,42,214 sq. km
Capital: Jaipur
Population: 2,57,65,806
Principal languages: Rajasthani and Hindi

AGRICULTURE

Gross irrigated area in Rajasthan covers 24.19 lakh hectares. The agricultural production is mainly dependent on rainfall. The principal crops grown in the State are jowar, bajra, maize, gram, wheat, oilseeds, cotton, sugarcane and tobacco. The production of foodgrains during 1969-70 to 1970-71 increased from 47.21 lakh tonnes to 88.13 lakh tonnes; sugarcane and oilseeds from 0.68 and 2.17 lakh tonnes to 1.22 and 5.31 lakh tonnes respectively. The production of cotton increased from 1.19 lakh bales in 1969-70 to 2.29 lakh bales in 1970-71.

Forests cover 36,821 sq. km or 10.7 per cent of the total area of the State.

INDUSTRY

In mineral resources, Rajasthan occupies a unique position. The country's entire output of lead and zinc concentrates, emeralds and garnets are derived from the State. Besides, 92 per cent of India's gypsum, 90 per cent of silver, 75 per cent of asbestos and felspar and 20 per cent of mica are mined here. It has rich salt deposits at Sambhar and other places.

Textiles, rugs and woollen goods, sugar, cement, glass, sodium producing plant, oxygen and acetylene producing units, manufacture of pesticides, insecticides and dyes are some of the major industries. Other enterprises include the manufacture of caustic soda, calcium carbide, nylon and tyre cord and copper smelting. Amongst the important Central Government undertakings is the Precision Instruments Factory.

Rajasthan's handicrafts are famous all over the world. Important handicrafts are marble work, woollen carpets, jewellery, embroidery, articles of leather, pottery and brass embossing.

IRRIGATION AND POWER

The major irrigation schemes implemented since Independence include Kota Barrage, Rana Pratap Sagar (both inter-State projects in collaboration with Madhya Pradesh) and Rajasthan Canal, which will be the longest in the world when completed. Besides, a number of small and medium irrigation schemes, the State is benefited from Gurgaon Canal, Bhakra Nangal Project, Gandhi Sagar Dam and Beas Project. The major power projects are the Jawahar Sagar Dam and Chambal Stage III.

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*As on 6 June 1972.

The total installed capacity by the end of 1971-72 was 518.20 mw through various hydel and thermal stations. This is expected to be 785.53 mw by the end of the Fourth Plan. Rajasthan had only 42 electrified villages and towns in 1951, the number increased to 3,067 in March 1971. For irrigation, the State had installed 35,095 pump-sets/tube-wells as on 31 March 1971. These were only thirty in 1951.

GOVERNMENT

Governor: Jogendra Singh

Council of Ministers*

Chief Minister: Barkatullah Khan
Cabinet Ministers: Hari Deo Joshi, Paras Ram Maderna, Narain Singh Masuda, Chandan Mal Baid, Ramchandra Chaudhary and Onkar Lal.
Ministers of State: Smt. Kamla Beniwal, Jhujhar Singh and Mool Chand.

Legislative Assembly*

Speaker: Ram Kishore Vyas
Deputy Speaker: Ram Singh Yadav

High Court**

Chief Justice: Jagat Narayan
Judges: L.N. Chhangani, B.P. Beri, P.N. Shinghal, V.P. Tyagi, Kan Singh, Lehar Singh Mehta and Chand Mal Lodha.
Additional Judges: S.N. Modi, R.D. Gattani, J.P. Jain and M.L. Joshi.

Public Service Commission*

Chairman: B.D. Mathur
Members: Vishnudutt Sharma, R.S. Kapoor and Dhuleswar Meena.

Chief Secretary: R.S. Khurana

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Ajmer	8,479	11,47,729	Ajmer
2. Alwar	8,382	13,91,162	Alwar
3. Banswara	5,037	6,54,586	Banswara
4. Barmer	28,387	7,74,805	Barmer
5. Bharatpur	8,093	14,90,206	Bharatpur
6. Bhilwara	10,450	10,54,890	Bhilwara
7. Bikaner	27,231	5,73,149	Bikaner
8. Bundi	5,550	4,49,021	Bundi
9. Chittaurgarh	10,858	9,44,981	Chittaurgarh
10. Churu	16,829	8,74,439	Churu
11. Dungarpur	3,770	5,30,298	Dungarpur
12. Ganganagar	20,629	13,94,011	Ganganagar
13. Jaipur	14,000	24,82,385	Jaipur
14. Jaisalmer	38,401	1,66,761	Jaisalmer
15. Jalore	10,640	6,67,950	Jalore
16. Jhalawar	6,216	6,22,001	Jhalawar
17. Jhunjhunu	5,929	9,29,230	Jhunjhunu
18. Jodhpur	22,860	11,52,712	Jodhpur
19. Kota	12,437	11,43,870	Kota
20. Nagaur	17,718	12,62,157	Nagaur
21. Pali	12,391	9,70,002	Pali
22. Sawai Madhopur	10,593	11,93,528	Sawai Madhopur
23. Sikar	7,732	10,42,648	Sikar
24. Sirohi	5,135	4,23,815	Sirohi
25. Tonk	7,200	6,25,830	Tonk
26. Udaipur	17,267	18,03,680	Udaipur

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* As on 27 July 1972.

**As on 15 May 1972.

TAMIL NADU

Area: 1,30,069 sq. km
Population: 4,11,99,168
Capital: Madras
Principal language: Tamil

AGRICULTURE

The total cultivated area in Tamil Nadu is about 62.81 lakh hectares, of which the irrigated area is about 24.86 lakh hectares. The main food crops grown in the State are paddy, maize, jowar, bajra, pulses and millets. Important commercial crops are sugarcane, oilseeds, cotton, tobacco, coffee, tea, rubber and pepper. During the period 1969-70 to 1970-71, the production of foodgrains increased from 62.39 lakh tonnes to 70.24 lakh tonnes and sugarcane and oilseeds from 11.08 and 9.52 lakh tonnes to 11.48 and 9.59 lakh tonnes respectively.

Forests cover an area of 21,870 sq. km. The main forest products are timber, sandalwood, softwood, bamboo and eucalyptus.

INDUSTRY

Cotton textiles is one of the major industries of Tamil Nadu. There are nearly 180 cotton textile mills in the State and most of the spinning mills are supplying yarn to the decentralised sector, namely the handloom industry. Other important industries are tanning, manufacture of textile machinery, power driven pumps, bicycles, electrical machinery, tractors, rubber tyres and tubes, bricks, tiles and silk. The State is the second largest producer of cement, while its sugar industry has been expanding rapidly.

A number of public sector undertakings are located in Tamil Nadu, important among them being, the Neyveli Lignite complex, the Integral Coach Factory, the High Pressure Boiler Plant, the Photo Film Factory, the Surgical Instruments Factory, the Teleprinters Factory, the oil refinery, the casting plant, as also some defence units including Heavy Vehicle and Tank Factory.

The State is an important exporter of tanned hides and skins, leather goods, cotton piecegoods and yarn, tea, coffee, spices, engineering goods and automobile ancillaries, etc. Lime-stone, manganese, mica, quartz, felspar, salt, bauxite and gypsum are some of the minerals found in the State.

The industrial sector's contribution to the State's income has gone up from Rs 98 crores in 1950-51 to Rs 350 crores in 1970-71.

IRRIGATION AND POWER

Important irrigation schemes implemented since Independence include Bhavani, the Amaravati, the Vaigai, the Parambikulam-Aliyar and the Krishnagiri, Sattanur and Pullambadi-Kattalai high level canal.

The total installed capacity of power as in November 1971 was 1,965 mw through various hydel and thermal stations. This is expected to be 2,474 mw by the end of the Fourth Plan. Tamil Nadu had 25,059 electrified villages in 1966-67, the number had increased to 49,505 by the end of January 1972.

GOVERNMENT

Governor: K.K. Shah

Council of Ministers*

Chief Minister: M. Karunanidhi

Cabinet Ministers: V.R. Nedunchezhiyan, K. Anbazhagan, N.V. Natarajan, Smt. Satyavanimuthu, P.U. Shanmugam, S. Madhavan,

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* As on 20 July 1972.

S.J. Sadiq Pasha, Si. Pa. Aditanar, Mannai P. Narayanaswamy, K. Rajaram, O.P. Raman, S. Ramachandran and M. Kannappan.

Legislative Assembly*

Speaker: K. Mathiazhagan
Deputy Speaker: P. Srinivasan

High Court**

Chief Justice: K. Veeraswami
Judges: P.S. Kailasam, P.R. Gokulakrishnan, R. Sadasivam, K.S. Venkataraman, N.K. Reddy, T. Ramaprasada Rao, M.K.M. Ismail, A. Alagiriswami, K.N. Mudaliyar, K.S.G. Palaniswami, G. Ramanujam, V.V. Raghavan, V. Ramaswamy and K.S. Ramamurti.
Additional Judges: S.P. Maharajan, B.S. Somasundaram and N.S. Ramaswami.

Public Service Commission*

Chairman: M.A. Sheriff
Members: R. Ramasubramaniam, P.S. Kumaravelu and C. Sundaramurthi.

Chief Secretary: P. Sabanayagam

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Chingleput	7,920	29,07,599	Kancheepuram
2.	Coimbatore	15,673	43,73,178	Coimbatore
3.	Dharmapuri	9,643	16,77,775	Dharmapuri
4.	Kanyakumari	1,684	12,22,549	Nagercoil
5.	Madras	128	24,69,449	Madras
6.	Madurai	12,629	39,38,197	Madurai
7.	North Arcot	12,265	37,55,797	Vellore
8.	Ramanathapuram	12,578	28,60,207	Madurai
9.	Salem	8,643	29,92,616	Salem
10.	South Arcot	10,898	36,17,723	Cuddalore
11.	Thanjavur	9,735	38,40,732	Thanjavur
12.	The Nilgiris	2,549	4,94,015	Ootacamund
13.	Tiruchirappalli	14,291	38,48,816	Tiruchirappalli
14.	Tirunelveli	11,433	32,00,515	Tirunelveli

TRIPURA†

Area: 10,477 sq. km	*Population:* 15,56,342
Capital: Agartala	*Principal languages:* Bengali and Tripuri

AGRICULTURE

Irrigated area forms nearly six per cent of the total cultivated area in Tripura. Rice is the main crop grown in the State. Other crops are pulses, oilseeds and jute. The total production of foodgrains increased from 2.36 lakh tonnes in 1969-70 to 2.44 lakh tonnes in 1970-71. Of this, the production of rice was 2.43 lakh tonnes and of pulses 1,300 tonnes in 1970-71, compared to 2.35 lakh tonnes and 1,100 tonnes respectively in 1969-70. The production of oilseeds was 2,500 tonnes during 1970-71.

INDUSTRY

Tea is the major industry in Tripura. There are 55 tea gardens. Other important industries are handlooms, handicrafts and khadi. The State has several village and small-scale industries.

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* As on 20 July 1972. ** As on 15 May1972

† The new State of Tripura was inaugurated on 21 January 1972 as a result of North-Eastern Areas (Reorganisation) Act, 1971.

IRRIGATION AND POWER

Various schemes of lift irrigation and installation of tube-wells have been taken up in the Fourth Plan. Thirty-nine schemes have so far been completed and 17 more are under completion. With the completion of all these schemes, 4,325 acres of land will be brought under cultivation. The total installed capacity in November 1971 was 2,680 kw in addition to power drawn from Assam Grid which was 300 kw. The anticipated installed capacity at the end of the Fourth Plan is 10,000 kw in addition to Assam Grid capacity of 3,000 kw. Eighty-five villages had been electrified and 25 pumpsets had been energised up to 30 June 1972.

GOVERNMENT

Governor: B.K. Nehru

Council of Ministers*

Chief Minister: S. Sengupta.
Cabinet Ministers: Monoranjan Nath, H.C. Chowdhury, D.K. Choudhury and K.C. Das.
Deputy Ministers: M. Alie, Smt. Basana Chakraborty and S.C. Shom.

Legislative Assembly*

Speaker: Manindralal Bhowmik
Deputy Speaker: Usharanjan Sen

High Court*

The jurisdiction of Gauhati High Court extends over the State of Tripura. For list of judges, see under Assam.

Chief Secretary: V.P. Singhal

AREA AND POPULATION OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*
1. North Tripura	3,541	4,05,009
2. South Tripura	3,577	3,99,728
3. West Tripura	3,359	7,51,605

UTTAR PRADESH

Area: 2,94,413 sq. km
Capital: Lucknow
Population: 8,83,41,144
Principal language: Hindi

AGRICULTURE

Out of the total area of Uttar Pradesh, 3.5 per cent is covered by rivers, irrigation projects, channels, reservoirs, lakes and tanks, etc. The principal food crops are wheat, gram, rice, barley, maize, sugarcane sesamum, bajra, linseed and mustard. Cotton, groundnut, tea and tobacco are the important cash crops. Jute is also cultivated in some areas. It is the main opium growing State in India. During the period 1969-70 to 1970-71 production of foodgrains increased from 174.13 lakh tonnes to 193.52 lakh tonnes and of oilseeds from 16.31 lakh tonnes to 18.27 lakh tonnes. Jute production went up from 1.55 lakh bales in 1969-70 to 1.83 lakh bales in 1970-71. The production of sugarcane (gur) and cotton in 1970-71 was 50.40 lakh tonnes and 10.41 lakh bales, respectively.

Forests cover 15.3 per cent of the total area of the State.

INDUSTRY

Uttar Pradesh is one of the principal sugar producing States. While the handloom industry is the largest cottage industry, cotton and woolien textiles, leather and footwear, distilleries and breweries, paper and chemicals, glass and glass products are some of the other flourishing industries of the State.

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* As on 22 July 1972.

A number of big undertakings have been set up by the Central Government. These are: the Bharat Electricals at Hardwar, the Indian Drugs and Pharmaceuticals Ltd. at Rishikesh, the Diesel Locomotive Factory at Varanasi, fertilizer factory at Gorakhpur, the Triveni Structurals at Naini, the deep freeze meat plant at Tundla, the Hindustan Aeronautics Limited at Chinhat in Lucknow and two cement factories at Churk and Dalla, both in Mirzapur district.

The traditional handicrafts are silk fabrics, metal-ware, wood-work, ceramics, stone work, dolls, artistic leather articles, ivory articles, papier mache, perfumery, bamboo products and musical instruments.

IRRIGATION AND POWER

Uttar Pradesh has a large irrigation potential and has been a pioneer in the field of irrigation and power projects. Important irrigation projects implemented since Independence include Matatilla Dam, Ramganga, Western Gandak Canal and Sarda Sagar, besides a number of small and medium irrigation projects. Major power projects are Rihand Hydro-electric Project, Harduaganj Thermal Station, Kanpur New Thermal Station and Jamuna Hydro-electric Scheme, in addition to many small and medium projects.

The total installed capacity of power as in 1971-72 was 1,572 mw through the various hydel and thermal stations. This is expected to be 1,827 mw by the end of the Fourth Plan. The State had only 581 electrified villages in 1951; the number had increased to 2,071 in March 1971. For irrigation, the State had installed 11,064 tube-wells up to 31 March 1972 whereas there were only 2,305 tube-wells in 1951.

GOVERNMENT

Governor: Akbar Ali Khan

Council of Ministers*

Chief Minister: Kamalapati Tripathi
Cabinet Ministers: Dr Sita Ram, Udit Narain Sharma, Dr Ramji Lal Sahayak, Lakshmi Shanker Yadava, Swami Prasad Singh, Narain Dutt Tewari, Ajit Pratap Singh, Bal Dev Singh Arya, Beni Singh, Ram Lakhan, Mahmood Ali Khan, Balram Singh Yadava and Dharma Dutt Vaidya.
Ministers of State: Gopi Nath Dixit, Om Prakash Singh, Shyam Surat Upadhyaya, Raj Bihari Singh, Kuwar Asharaf Ali Khan, Yadvendra Singh, Narendra Singh Bhandari, Ganesh Datt Bajpai, Kazi Zalil Abbasi, Begum Hamida Habibullah, Purushottam Das Tandon, Nagina Singh, Radha Krishan Goswami, Devki Nandan Vibhav, Uma Datt Sharma and Prem Chandra Sharma.
Deputy Ministers: Abid Ali Ansari, Gulab Singh, Bir Bahadur Singh, Sohan Lal Dhusiya, Ram Krishna Dwivedi, Krishna Chandra Sharma, Siya Ram Gangwar, Ram Poojan Patel and Jagannath Prasad.

Legislative Council*

Chairman: Virendra Swaroop
Deputy Chairman: Kunwar Devendra Pratap Singh

Legislative Assembly*

Speaker: Atmaram Govind Kher
Deputy Speaker: Vasudev Singh

High Court**

Chief Justice: S.K. Verma
Judges: D.S. Mathur, S.N. Dwivedi, T. Ramabhadran, B.D. Gupta, K.B. Ashthana, S.D. Khare, G.C. Mathur, Satish Chandra, Yashoda Nandan, K.C. Puri, A.K. Kirty, J.S. Trivedi, R.L. Gulati, R.B. Misra, K.N. Srivastava, C.D. Parekh, O.P. Trivedi, Hari Swaroop, M.N. Shukla and K.B. Srivastava.

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* As on 6 June 1972.
** As on 15 May 1972.

Additional Judges: Jagmohan Lal, H.N. Seth, M.H. Hussain, S.B. Malik, Jagmohan Lal Sinha, K.N. Singh, C.S.P. Singh, Gopi Nath, T.S. Misra, N.D. Ojha, K.N. Seth and Pratap Narain Bakshi.

Public Service Commission*

Chairman: Amba Dat Pande
Members: Dr Ram Lal Singh, Kunwar Mahmood Ali Khan, Bijai Bahadur Sahi, Basant Singh Seth and Vir Sen.

Chief Secretary: M. Lal

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Agra	4,816	23,08,638	Agra
2. Aligarh	5,024	21,11,829	Aligarh
3. Allahabad	7,255	29,37,278	Allahabad
4. Almora	7,023	7,50,038	Almora
5. Azamgarh	5,744	28,57,484	Azamgarh
6. Bahraich	6,871	17,26,972	Bahraich
7. Ballia	3,183	15,88,935	Ballia
8. Banda	7,645	11,82,215	Banda
9. Bara Banki	4,422	16,35,593	Bara Banki
10. Bareilly	4,125	17,79,867	Bareilly
11. Basti	7,309	29,84,090	Basti
12. Bijnor	4,852	14,90,185	Bijnor
13. Budaun	5,158	16,45,967	Budaun
14. Bulandshahr	4,895	20,73,343	Bulandshahr
15. Chamoli	9,125	2,92,571	Chamoli
16. Dehra Dun	3,088	5,77,306	Dehra Dun
17. Deoria	5,400	28,12,350	Deoria
18. Etah	4,449	15,17,925	Etah
19. Etawah	4,327	14,47,702	Etawah
20. Faizabad	4,427	19,27,281	Faizabad
21. Farrukhabad	4,349	15,56,930	Fatehgarh
22. Fatehpur	4,168	12,78,254	Fatehpur
23. Garhwal	5,440	5,53,028	Pauri
24. Ghazipur	3,381	15,31,654	Ghazipur
25. Gonda	7,331	23,02,029	Gonda
26. Gorakhpur	6,316	30,38,177	Gorakhpur
27. Hamirpur	7,192	9,88,215	Hamirpur
28. Hardoi	6,012	18,49,519	Hardoi
29. Jalaun	4,549	8,13,490	Orai
30. Jaunpur	4,040	20,05,434	Jaunpur
31. Jhansi	10,069	13,07,058	Jhansi
32. Kanpur	6,121	29,96,232	Kanpur
33. Kheri	7,691	14,86,590	Lakhimpur
34. Lucknow	2,528	16,17,846	Lucknow
35. Mainpuri	4,254	14,45,534	Mainpuri
36. Mathura	3,797	12,90,307	Mathura
37. Meerut	5,944	33,66,953	Meerut
38. Mirzapur	11,301	15,41,088	Mirzapur
39. Moradabad	5,946	24,28,971	Moradabad
40. Muzaffarnagar	4,245	18,02,289	Muzaffarnagar
41. Naini Tal	6,792	7,09,080	Naini Tal
42. Pilibhit	3,504	7,52,114	Pilibhit
43. Pithoragarh	7,217	3,13,747	Pithoragarh
44. Pratapgarh	3,730	14,22,707	Bela
45. Rae Bareli	4,603	15,10,812	Rae Bareli
46. Rampur	2,372	9,01,209	Rampur
47. Saharanpur	5,526	20,54,834	Saharanpur
48. Shahjahanpur	4,581	12,86,104	Shajahanpur
49. Sitapur	5,738	18,84,400	Sitapur
50. Sultanpur	4,424	16,42,928	Sultanpur
51. Tehri-Garhwal	4,421	3,97,385	Narendra Nagar
52. Unnao	4,586	14,84,393	Unnao
53. Uttarkashi	8,016	1,47,805	Uttarkashi
54. Varanasi	5,091	28,52,459	Varanasi

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* As on 6 June 1972.

WEST BENGAL

Area: 87,853 sq. km
Population: 4,43,12,011
Capital: Calcutta
Principal language: Bengali

AGRICULTURE

About 57.5 per cent of the total population of West Bengal is engaged in agricultural pursuits. Irrigated area forms about 46 per cent of the total cultivated area. The State occupies the first position among the rice growing States. The area occupied by paddy is nearly 70 per cent of the total cultivated area of the State. Other important food crops are wheat, maize, barley, gram and peas. Amongst the cash crops the most important are jute, tea and pan leaf, while oilseeds, tobacco and sugarcane are also produced in small quantities. The production of foodgrains and oilseeds increased from 73.64 lakh tonnes and 49,000 tonnes in 1969-70 to 74.18 lakh tonnes and 50,000 tonnes respectively in 1970-71. Of this the production of rice alone was 63.50 lakh tonnes and 61.05 lakh tonnes during 1969-70 and 1970-71 respectively. The production of sugarcane (gur) and jute was 1.5 lakh tonnes and 26.84 lakh bales respectively in 1970-71. The State contributes the largest share to the country's foreign exchange earnings through export of jute and tea.

Forests cover about 14 per cent of the total area of the State. Major forest products are timber, honey, firewood, charcoal, *katha* and bamboo.

INDUSTRY

Coal, which meets one-third of the country's requirements, and fire-clay are the two most important minerals found in West Bengal. Other minerals found in the State are china-clay, limestone, copper, iron, silica, manganese, sandstone and moulding sand. West Bengal is a major industrial State. There are two big steel plants – one in the public sector at Durgapur and the other in the private sector at Burnpur. The other major industries are jute, tea, cotton textiles, silk, automobile, bicycle, light engineering, paper, chemicals, aluminium, sugar, timber processing, ceramic and glass, leather and footwear, bone-meal and dairying.

New industrial areas are being developed at Haldia, Durgapur and Kalyani. The Fertilizer Corporation is setting up a fertilizer project at Haldia, where the commissioning of a new port and an oil refinery project is also under way.

IRRIGATION AND POWER

Important multipurpose irrigation and power schemes implemented since Independence are the Damodar Valley Project and the Mayurakshi Project. Other irrigation projects are Kumari Dam under the Kangsabati Project (under completion). The major power projects are Bandel and Durgapur Power Projects. The present installed capacity in Lower Bengal is 1,065 mw. There is a 320 mw power station at Bandel and another 285 mw power station at Durgapur. The installed capacity in the power stations of Calcutta Electricity Supply Corporation is 461 mw. In addition, Damodar Valley Corporation also supplies power to West Bengal from its generating stations. For further development of power, a sum of Rs 81 crores has been provided in the Fourth Plan.

West Bengal had only 386 electrified villages in 1951, the number increased to 3,328 in March 1972. The State Electricity Board has embarked on a programme of electrification of an additional 10,000 villages by the end of 1973.

GOVERNMENT

Governor: A.L. Dias

Council of Ministers*

Chief Minister: Siddhartha Shankar Ray
Cabinet Ministers: Abdus Sattar, Jainal Abedin, Mrityunjoy Banerjee, A.B.A. Gani Khan Chaudhuri, Tarun Kanti Ghosh, Sankar Ghosh, Gurupada Khan, Sitaram Mahato, Kashi Kanta Moitra, Gopaldas Nag, Gyansingh Sohanpal, Ajit Panja, Santosh Roy and Bholanath Sen.
Ministers of State: Pradip Bhattacharyya, Ananda Mohan Biswas, Prafulla Kanti Ghosh, Fazle Haque, Danish Lakra, Subrata Mukherjee, Gobinda Naskar, Ramkrishna Saraogi and Atish Sinha.
Deputy Ministers: Amala Soren, G. S. Gurung and Suniti Chattoraj.

Legislative Assembly*

Speaker: Apurba Lal Mazumdar
Deputy Speaker: Haridas Mitra

High Court**

Chief Justice: P.B. Mukherji

Judges: S.P. Mitra, A.C. Roy, C.N. Laik, A.K. Mukherjee, R.N. Dutt, B.C. Mitra, A.C. Gupta, Syed Sadat Abul Masud, A.N. Sen, S.K. Mukherjee, S.C. Ghose, R.M. Datta, N.C. Talukdar, S.C. Deb, A.K. Sinha, S. Mukherji, T.K. Basu, S.K. Datta, P.K. Banerjee, A.K. Basu, A.K. Sen, A.P. Das, Chittartosh Mukherjee, A.K. Mookerji, M.M. Dutt, P.C. Borooah, A.K. De, S.K. Roy Chaudhuri and K.J. Sengupta.

Additional Judges: R.N. Bhattacharyya, S.K. Bhattacharyya, S.K. Hazra, A.K. Janah, P.K. Chanda and N.C. Mukharji.

Public Service Commission*

Chairman: J.L. Kundu
Members: B.N. Sen, H.B. Mondal, P.K. Dutta and Dr Md. Sabir Khan.

Chief Secretary : A. Niyogi

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Bankura	6,881	20,31,039	Bankura
2. Birbhum	4,550	17,75,909	Suri
3. Burdwan	7,028	39,16,174	Burdwan
4. Calcutta	104	31,48,746	Calcutta
5. Cooch Behar	3,386	14,14,183	Cooch Behar
6. Darjeeling	3,075	7,81,777	Darjeeling
7. Hooghly	3,145	28,72,116	Chinsurah
8. Howrah	1,474	24,17,286	Howrah
9. Jalpaiguri	6,245	17,50,159	Jalpaiguri
10. Malda	3,713	16,12,657	English Bazar
11. Midnapur	13,724	55,09,247	Midnapur
12. Murshidabad	5,341	29,40,204	Baharampur
13. Nadia	3,926	22,30,270	Krishnanagar
14. Purulia	6,259	16,02,875	Purulia
15. 24–Parganas	13,796	84,49,482	Alipur
16. West Dinajpur	5,206	18,59,887	Balurghat

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* As on 15 June 1972.
** As on 15 May 1972.

ANDAMAN AND NICOBAR ISLANDS

Area: 8,293 sq. km *Population:* 1,15,133
Headquarters: Port Blair

AGRICULTURE

About 19 per cent of the total working population of the Islands is engaged in agricultural pursuits. Irrigated area is negligible. The tropical climate and fertile soil are well suited to the growth of rice, rubber, coffee, coconut, areca nut, cashew nut and fruits. Among the fruits lemon, mango, guava, orange, custard apple, pineapple and banana are extensively grown. The production of foodgrains (rice) increased from 9,598 tonnes in 1969-70 to 10,006 tonnes in 1970-71.

Forests occupy an area of 7,468 sq. km. Important forest produce includes various types of timber, bamboo and pandanus.

INDUSTRY

Timber, furniture making and shell are major industries. Plywood, match making and oil milling are other industries. Mat making from the pandanus leaves is an important cottage industry. Other cottage industries include leather goods, handicrafts and handloom and coir making.

IRRIGATION AND POWER

The total installed capacity of power as in November 1971 was 1.76 mw which is expected to reach 2.76 mw by the end of the Fourth Plan. Irrigation is done mostly through wells. Of 399 villages in the Islands, 32 villages had been electrified by June 1972 as compared to nil in 1951.

GOVERNMENT

Chief Commissioner: Har Mander Singh

High Court

The jurisdiction of Calcutta High Court extends over A & N Islands. For list of judges, see under West Bengal.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary: S.C. Vajpeyi

ARUNACHAL PRADESH†

Area: 83,578 sq. km *Population:* 4,67,511
Capital: Shillong

AGRICULTURE

Nearly 46 per cent of the people of Arunachal Pradesh are engaged in agriculture. Irrigated area forms 17 per cent of the total cultivated area. The traditional method of agriculture is *jhuming*, a kind of shifting cultivation. The forests are cleared and crops are raised for one to three years, depending on the fertility of the soil. Thereafter, the cultivation moves on elsewhere. Main crops produced are paddy, maize, millets and mustard seeds. The production of foodgrains increased from 72,000 tonnes in 1969-70 to 75,700 tonnes in 1970-71. The production of oilseeds increased from 2,700 tonnes in 1969-70 to 2,800 tonnes in 1970-71.

INDUSTRY

Principal industries in Arunachal Pradesh are forest-based which cover 61 per cent of the total geographical area. Progress has been made in this direction both in the field of financial investment and in generation of employment. However, emphasis is also laid on cottage industries. For this purpose, the existing facilities in the production and training centres are being expanded. Stipends are also given for training in technical trades.

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† Parliament passed the North-Eastern Areas (Reorganisation) Bill in 1971, changing the name of the Union Territory of NEFA into 'Arunachal Pradesh.'

IRRIGATION AND POWER

There is no major irrigation and power project in Arunachal Pradesh. Micro projects at Rahung, Bousar and Pasighat are under progress. The total installed capacity in November 1971 was 1,626.5 kw which is expected to be 5,247.5 kw by the end of the Fourth Plan. Arunachal Pradesh had only seven electrified villages in 1961 and the number increased to 37 in March 1971.

GOVERNMENT

Chief Commissioner: K.A.A. Raja

High Court

The jurisdiction of Gauhati High Court extends over the Union Territory of Arunachal Pradesh. For list of judges, see under Assam.

Chief Secretary: H.S. Butalia

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km.)*	*Population (1971 census)*	*Headquarters*
1. Kameng	13,724	86,001	Bomdila
2. Lohit	24,427	62,865	Tezu
3. Siang	23,723	1,21,936	Along
4. Subansiri	14,797	99,239	Ziro
5. Tirap	6,907	97,470	Khonsa

CHANDIGARH

Area: 114 sq. km *Population:* 2,57,251
Headquarters: Chandigarh

AGRICULTURE

Irrigated area covered 33.7 and 36.4 per cent of the total cultivated area of the Union Territory of Chandigarh during 1970-71 and 1971-72 respectively. Paddy, wheat, maize and bajra are the principal food crops grown. The production of foodgrains in 1971-72 was 7,422 tonnes compared to 5,537 tonnes in 1970-71. Forests cover 27.5 per cent of the total geographical area of the Territory.

INDUSTRY

The major industries located in the Union Territory of Chandigarh are wool tops and yarn, hosiery needles, electric meters, antibiotics and medicines, cycle rims, chains and free wheels, card-board and steel furniture. The cottage and small scale industries are iron and steel re-rolling, steel fabrication, sanitary fittings, door fittings, electronic components, cutlery, fountain pen nibs, machine screw, hardware, electrical appliances, plastic shoes, cotton ginning, machine parts, cigarette making machines, utencils, paints and varnishes, radios and transistors, auto parts and sewing machine parts, tiles, conduit pipes and rivets, miniature bulbs, insecticides and pesticides, auto cables and domestic cables, thermometers, wire drawing and wire products, soaps and chemicals and cement pipes, etc.

IRRIGATION AND POWER

There is no irrigation project in Chandigarh. The total installed capacity as on 31 March 1972 was 35,000 kva, compared to 15,000 kva in May 1967. The number of villages electrified also rose to 31 on this date from 14 in 1967. For irrigation, the number of tube-wells/pumping sets installed was 280 as on 31 March 1972.

GOVERNMENT *Chief Commissioner:* N.P. Mathur

High Court The jurisdiction of the High Court of Punjab and Haryana extends over the Union Territory of Chandigarh. For list of judges, see under Haryana.

DADRA AND NAGAR HAVELI

Area: 491 sq. km *Population:* 74,170
Headquarters: Silvassa

AGRICULTURE Agriculture is the main occupation of *Adivasis*, who comprise 86 per cent of the total population of the Union Territory of Dadra and Nagar Haveli. Paddy is the major food crop and wheat is also grown in some areas. Main cash crops are oilseeds, sugarcane and banana. The production of foodgrains increased from 12,800 tonnes in 1969-70 to 16,200 tonnes in 1970-71.

Forests occupy 43 per cent of the total geographical area of the Territory. Main forest products are timber and bamboo.

INDUSTRY There are no major industries in this Union Territory. A beginning has, however, been made in this direction by establishing an industrial estate at Piparia near Silvassa. At present 27 units are working in this industrial estate. Automobile parts, pesticides, opticals, engineering goods, hand-made paper and tanning are some of the industries taken up by these units.

IRRIGATION AND POWER There is no major or medium irrigation scheme. However, this Territory is participating with the Government of Gujarat in Damanganga Reservoir Project. Minor irrigation schemes at Tigra, Kherdi Khadoli-Tinoda have been completed.

Power in this Territory is obtained through an 11 kv transmission line from Vapi sub-station of Gujarat Electricity Board. The total installed capacity on 13 March 1972 was 1,400 kva. Out of 72 villages in this Territory, 13 had been electrified by 31 March 1972. Electrification of seven more villages and three localities is under way. The number of pump sets/tube-wells on this date was 58.

GOVERNMENT *Administrator:* S.K. Banerji

High Court The jurisdiction of Bombay High Court extends over this Territory. For list of judges, see under Maharashtra.

DELHI

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*Area:*1 ,485 sq. km *Population:* 40,65,698
Headquarters: Delhi

AGRICULTURE Wheat, gram, paddy, maize, bajra, jowar and barley are the principal food crops grown in the Union Territory of Delhi. Small quantities of cash crops like sugarcane, mustard and tobacco are also grown. Of late, grape cultivation in villages around Delhi is becoming popular.

The production of foodgrains increased from 1.03 lakh tonnes in 1969-70 to 1.27 lakh tonnes in 1970-71.

INDUSTRY

There were 26,794 industrial units employing 2,14,614 persons in Delhi during 1970. The total investment in these units was Rs 159 crores and the value of total production was Rs 311 crores. The Okhla Industrial Estate houses a number of industries. Prominent amongst them are steel castings, drugs and chemicals, paints and varnishes, manufacture of television sets, radios, transistors, electrical goods, machine tools and vegetable oils, etc. Other industries include leather and rubber goods, pottery-making, textiles and tanning. The well-known cottage industries of Delhi are ivory works, gold and silver embroidery, jewellery, brass and copperware. Delhi has the maximum per capita income, *i.e.*, Rs 1,239 compared to Rs 542 of all India.

IRRIGATION AND POWER

Minor works and tube-wells play an important role in irrigation. Construction of new bandhs and restoration or strengthening of old bandhs is undertaken where necessary. There is no major irrigation project in the Union Territory of Delhi. Some minor power projects at Rajghat, Indraparastha Station and other areas have been completed. A central thermal power station with 3 generating units of 100 mw each and estimated to cost Rs 40 crores will be completed at Badarpur during the Fourth Plan. The total installed capacity in November 1971 was 252 mw through the various hydel and thermal stations. It is expected to be 273 mw by the end of the Fourth Plan. Delhi has the distinction of cent per cent electrified villages. Delhi had only 24 electrified villages in 1957; the number had increased to 276 in 1971. For irrigation, 6,108 pump sets/tube-wells had been installed by 31 March 1972, while the number in 1951 was nil.

GOVERNMENT

Lt. Governor: Baleshwar Prasad

Metropolitan Council*

Chief Executive Councillor: Radha Raman
Executive Councillors: Mange Ram, O.P. Behl and Krishan Swarup.

High Court**

Chief Justice: S.N. Andley
Judges: T.V.R. Tatachari, Jagjit Singh, S.N. Shankar, V.S. Deshpande, P.N. Khanna, S.I. Rangarajan, Prakash Narain, Pritam Singh Safeer, M.R.A. Ansari, Vyas Dev Misra and B.C. Misra.
Additional Judges: Rajinder Sachar, Prithvi Raj, D.K. Kapur, T.P.S. Chawla, A.B. Rohatgi and R.N. Agrawal.

Chief Secretary: T.N. Chaturvedi

GOA, DAMAN AND DIU

Area: 3,813 sq. km
Population: 8,57,771
Capital: Panaji
Principal languages: Marathi, Konkani and Gujarati

AGRICULTURE

About 85 per cent of the people of Goa, Daman and Diu live in villages. Irrigated area forms about 5.6 per cent of the total cultivated area.

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*As on 31 May 1972.
**As on 15 May 1972.

Rice is the only important crop and the total area under rice during 1970-71 was 51,600 hectares. Other crops grown in small quantities include wheat, maize, jowar and bajra. The main cash crops are coconut, cashew nut, betel nut, areca nut and fruits like pineapples, mangoes and bananas. The production of rice increased from 66,300 tonnes in 1969-70 to 68,600 tonnes in 1970-71.

Forests cover about 28.4 per cent of the total geographical area of the Union Territory.

INDUSTRY

The Territory is rich in mineral wealth which consists of iron, manganese, ferro-manganese, bauxite and silica sand. The estimated production of these minerals in the Territory during 1971-72 was 1,37,873 tonnes. The foreign exchange earnings as a result of the export of mineral ores were over Rs 30 crores. The mining industry thus contributes substantially to the economy of the Territory.

As on 31 March 1972, the number of small scale industries registered with the Directorate of Industry was 870 which included workshops, bakeries, printing presses, saw mills, tyre retreading units, fruit and fish canning, cashew processing, mosaic tiles, soap manufacture, furniture making and also sophisticated industries like typewriter ribbons, carbon papers, automobile batteries, acryllic sheets, polythelene bags, sodium silicate, fishing nets, zip-fasteners, stoves and footwear, etc.

The large and medium scale industries include a flour mill, a textile mill, a steel re-rolling mill, a brewery plant, a pelletization plant, etc. A fertilizer project and a pesticides plant are also expected to go into production.

IRRIGATION AND POWER

Lift irrigation schemes capable of irrigating 450 acres have been implemented. In addition, ten tanks have either been renovated or repaired which now irrigate 700 acres.

For irrigation, Goa had installed 212 pump sets/tube-wells as on 30 April 1972. For power supply, Goa depends on the neighbouring States of Maharashtra and Mysore.

The total installed capacity in March 1972 was 60 mva through various hydel and thermal stations and it is expected to be 120 mva by the end of the Fourth Plan. The number of electrified villages is 154 at present, compared to nil in 1961.

GOVERNMENT

Lt. Governor: S.K. Banerji

Council of Ministers*

Chief Minister: D.B. Bandodkar
Cabinet Ministers: A.K.S. Usgaonkar, Pratapsingh R. Rane and Smt. Shashikala G. Kakodkar.

Legislative Assembly*

Speaker: N.S. Fugro
Deputy Speaker: Chandrakant Chodankar

Chief Secretary: T. Kipgen

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Daman	72	38,739	Daman
2. Diu	40	23,912	Diu
3. Goa	3,701	7,95,120	Panaji

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* As on 9 June 1972.

LACCADIVE, MINICOY AND AMINDIVI ISLANDS

Area: 32 sq. km *Population:* 31,810
Headquarters: Kawarathy

AGRICULTURE Coconut is the only major crop of the Union Territory of Laccadive, Minicoy and Amindivi Islands with a turnover of Rs 50 to 65 lakhs a year. Every effort is made to increase its cultivation by introducing scientific methods and bringing more area under coconut trees. The production of coconut during 1970-71 was 3·78 crore nuts. Paddy cultivation has also been started on an experimental basis.

INDUSTRY Fishing is the main industry of the Islands. The sea around them is highly productive. Fishery programmes are very important for the economy of the Islands. There are 46 mechanised fishing boats.

Coir spinning and coir yarn production are the main cottage industries with an annual turn-over of Rs 6 to 7 lakhs. Coir products are exchanged with foodgrains and other consumer goods through the Central Government.

POWER Out of ten inhabited islands, eight had been electrified by 1971-72. The rest of the islands are expected to be electrified before the end of the Fourth Plan.

GOVERNMENT *Administrator:* K.D. Menon

High Court This Union Territory is under the jurisdiction of the Kerala High Court. For list of Judges, see under Kerala.

MIZORAM†

Area: 21,087 sq. km *Population:* 3,32,390
Headquarters: Aizawl *Principal languages:* Mizo and English

AGRICULTURE Over 87 per cent of the people of Mizoram are engaged in agricultural pursuits. Irrigated area forms about nine per cent of the total cultivated area of the Territory. The soil is fertile and hilly and the villages are situated on hill-tops. There is scarcity of water. In the hill slopes, maize and paddy are cultivated. Other crops grown are pulses, sugarcane, chillies, ginger, tobacco, vegetables, turmeric, potatoes, bananas and pineapples. Shift cultivation is ordinarily practised. The production of foodgrains increased from 30,688 tonnes in 1969-70 to 37,232 tonnes in 1970-71. During the same period, the production of sugarcane increased from 23 tonnes to 25 tonnes. Ginger increased from 380 to 1,200, chillies from 20 to 35, turmeric from 400 to 475, potatoes from 30 to 45 and pulses from 100 to 200 tonnes.

Forests cover 20 per cent of the geographical area. Important forest products are timber, bamboo, cane and agar.

INDUSTRY There is no major industry in Mizoram. Handloom and handicrafts are the only cottage industries. There is sufficient raw material for establishing a paper-pulp project and the Government of Mizoram have engaged an expert firm to prepare a feasibility report for this project.

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† Parliament passed the North-Eastern Areas (Reorganisation) Bill in 1971 converting Mizo district of Assam into a Union Territory under a Lt. Governor. The new Territory was inauguarated on 21 January 1972.

IRRIGATION AND POWER

It will be a long time before water supply can be arranged in all the villages of Mizoram. In the meantime, small *ad hoc* schemes like the cementing of water points, erection of small reservoirs at the collection points in the streams or springs and some improvised way of bringing the water as near as possible to the villages are being implemented.

At present, there are five diesel power stations to generate electricity mainly for local domestic consumption at Aizawl, Lunglei, Kolasib, Serchhip and Hnahthial. The total installed capacity in November 1971 was 891 kw which is expected to be 2,391 kw by the end of the Fourth Plan.

GOVERNMENT

Lt. Governor: Shanti Priya Mukherjee

Council of Ministers*

Chief Minister: Chalchhunga
Ministers: Khawtinkhuma, R. Thangliana and Vaivenga.
Deputy Minister: P.B. Nikhuma

Legislative Assembly*

Speaker: Thansanga
Deputy Speaker: Hephei

High Court

The jurisdiction of Gauhati High Court, extends over the Union Territory of Mizoram. For list of judges, see under Assam.

Chief Secretary: R.M. Agrawal

PONDICHERRY

Area: 480 sq. km
Capital: Pondicherry
Population: 4,71,707
Principal languages: Tamil and French

AGRICULTURE

Nearly 45 per cent of the population of Pondicherry is engaged in agriculture and other allied pursuits. Irrigated area forms about 79 per cent of the total cultivated area. Forests are practically non-existent. Paddy is the main food crop. Other crops grown in small quantities are jowar, bajra and maize. Sugarcane and oilseeds are the principal cash crops. The production of foodgrains increased from 1.02 lakh tonnes in 1970-71 to 1.90 lakh tonnes in 1971-72; sugarcane and oilseeds from 1.70 lakh tonnes and 10,120 tonnes to 1.80 lakh tonnes and 10,800 tonnes respectively.

INDUSTRY

Textiles, sugar, electrical appliances, camphor, leather goods, wooden articles and cycle parts are the main industries of the Union Territory of Pondicherry. During the Fourth Plan, the existing Government distillery at Pondicherry has been expanded with a modern and improved plant for producing 6,000 litres of industrial alcohol per day. This is expected to promote alcohol-based industries in the Territory.

IRRIGATION AND POWER

There are no major irrigation projects in Pondicherry. Minor irrigation schemes are executed jointly by the Agriculture Department and the Public Works Department. These include boring of wells.

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*As on 5 June 1972.

There are no power generation projects in the Territory. Pondicherry had 72 electrified villages in 1951. Now all the 353 villages in the Territory have been electrified. For irrigation, the Territory had installed 5,350 pump sets/tube-wells as in March 1972.

GOVERNMENT *Lt. Governor:* Cheddi Lal

Council of Ministers*

Chief Minister: M.O.H. Farook
Cabinet Ministers: S. Ramassamy, V. Kailasa Subbiah, S. Arumugam and D. Ramachandran.

Legislative Assembly*

Speaker: M.L. Selvaraj
Deputy Speaker: Kamichetty Sri Parasourama Varaprasada Rao Naidu.

High Court

The jurisdiction of Madras High Court extends over the Union Territory of Pondicherry. For list of judges, see under Tamil Nadu.

Chief Secretary: Smt. J. Anjani Dayanand

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Karaikal	161	1,00,042	Karaikal
2.	Mahe	9	23,134	Mahe
3.	Pondicherry	290	3,40,240	Pondicherry
4.	Yanam	20	8,291	Yanam

*As on 27 May 1972.

24 LAWS OF PARLIAMENT DURING 1971

Parliament passed eighty-seven Bills during 1971. These, together with the dates on which they were passed by the two Houses of Parliament and received the President's assent, are listed in Table 24.1. The scope and purpose of selected laws are explained below.

SCOPE AND PURPOSE OF SELECTED LAWS

The Constitution (Twenty-fourth Amendment) Act, 1971

Provides expressly that Parliament has the power to amend any provision of the Constitution, including the provisions relating to the fundamental rights.

The Constitution (Twenty-sixth Amendment) Act, 1971

Inserts a new article in the Constitution so as to terminate expressly the recognition already granted to Rulers and to abolish privy purses and extinguish all rights, liabilities and obligations in respect of privy purses.

The North-Eastern Areas (Reorganisation) Act, 1971

Establishes the new States of Manipur and Tripura, forms the new State of Meghalaya and the new Union Territories of Mizoram and Arunachal Pradesh by the reorganisation of the existing State of Assam. The Act defines their territories and makes necessary provisions regarding representation in Parliament and in the Legislative Assemblies of the States and other matters. It also constitutes a common High Court for all the States in the north-eastern region and a common Bar Council. The common High Court will also have jurisdiction in the new Union Territories.

The Constitution (Twenty-seventh Amendment) Act, 1971

Provides for inclusion of the Union Territory of Mizoram in article 239A of the Constitution to give it a legislature and a Council of Ministers. It also provides that the Administrator of a Union Territory with legislature shall have the power to promulgate ordinances when the legislature is not in session.

The General Insurance (Emergency Provisions) Act, 1971

Provides for the taking over, in the public interest, of the management of general insurance business pending nationalisation of such business.

The Maintenance of Internal Security Act, 1971

Gives powers of preventive detention to deal effectively with threats to the defence of India and to the security of India, especially from external sources and espionage activities of foreign agents.

The Defence of India Act, 1971

Provides for special measures to ensure the public safety and interest, the defence of India and civil defence and for the trial of certain offences and for matters connected therewith.

The Prevention of Insults to National Honour Act, 1971

Seeks to prevent disrespect to the National Flag, the Constitution and the National Anthem. The scope of the Act is restricted to overt acts of insult to and attacks on the national symbols by burning, trampling, defiling or mutilating in public. It is not intended to prohibit honest and bonafide criticism of the symbols, and express provision to this effect has been made in the Act.

The Medical Termination of Pregnancy Act, 1971

Liberalises certain existing provisions relating to termination of pregnancy. It provides for termination of pregnancy on three grounds: (1) on health grounds—when there is danger to the life or risk to the physical or mental health of the woman; (2) on humanitarian grounds—such as when pregnancy arises from a sex crime like rape; and (3) on eugenic grounds—when there is substantial risk that the child, if born, would suffer from deformities and diseases. The pregnancy can be terminated only at a hospital established or maintained by the Government or a place approved by it.

*The Constitution (Twenty-fifth Amendment) Act, 1972**

Seeks to surmount the difficulties placed in the way of giving effect to the Directive Principles of State Policy by the Supreme Court's interpretation in the Bank Nationalisation Case of 1970 of the word 'compensation' in clause 2 of article 31. The Act substitutes the clause, replacing the word 'compensation' with the word 'amount'. The substituted clause ensures that property can be compulsorily acquired or requisitioned for a public purpose for an 'amount' which may be fixed or determined in accordance with the law and this shall not be called in question in any court on the ground that the amount is not adequate or that the whole or any part of such amount is to be given otherwise than in cash. The Act also introduces a new article 31C which ensures that any law passed to give effect to the Directive Principles shall not be deemed to be void on the ground that it takes away or abridges any of the rights contained in articles 14, 19 or 31.

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* Passed by the two Houses of Parliament in 1971 but received President's assent on 20 April 1972.

TABLE 24.1

LAWS OF PARLIAMENT DURING 1971

Sl. No.	Bill	When introduced	When passed by the originating Chamber	When passed/ returned by the other Chamber	Date of President's assent	Initiating Chamber*
1	2	3	4	5	6	7
1.	The Appropriation (Railways) (Vote on Account) Bill, 1971	25-3-71	25-3-71	27-3-71	30-3-71	L.S.
2.	The Appropriation (Railways) Bill, 1971	25-3-71	25-3-71	27-3-71	30-3-71	L.S.
3.	The Manipur Appropriation (Vote on Account) Bill, 1971	25-3-71	25-3-71	27-3-71	30-3-71	L.S.
4.	The Manipur Appropriation Bill, 1971	25-3-71	25-3-71	27-3-71	30-3-71	L.S.
5.	The Appropriation Bill, 1971	25-3-71	25-3-71	27-3-71	30-3-71	L.S.
6.	The Appropriation (Vote on Account) Bill, 1971	27-3-71	27-3-71	29-3-71	30-3-71	L.S.
7.	The Imports and Exports (Control) Amendment Bill, 1971	24-3-71	25-3-71	30-3-71	30-3-71	R.S.
8.	The Orissa Appropriation (Vote on Account) Bill, 1971	29-3-71	29-3-71	30-3-71	30-3-71	L.S.
9.	The Orissa Appropriation Bill, 1971	29-3-71	29-3-71	30-3-71	30-3-71	L.S.
10.	The Mysore Appropriation (Vote on Account) Bill, 1971	29-3-71	29-3-71	30-3-71	30-3-71	L.S.
11.	The Mysore Appropriation Bill, 1971	29-3-71	29-3-71	30-3-71	30-3-71	L.S.
12.	The West Bengal Appropriation (Vote on Account) Bill, 1971	29-3-71	29-3-71	31-3-71	31-3-71	L.S.
13.	The West Bengal Appropriation Bill, 1971	29-3-71	29-3-71	31-3-71	31-3-71	L.S.
14.	The Finance Bill, 1971	24-3-71	27-3-71	31-3-71	7-4-71	L.S.
15.	The State of Himachal Pradesh (Amendment) Bill, 1971	30-3-71	2-4-71	6-4-71	19-4-71	L.S.
16.	The Labour Provident Fund Laws (Amendment) Bill, 1971	29-3-71	2-4-71	6-4-71	23-4-71	L.S.
17.	The General Insurance (Emergency Provisions) Bill, 1971	28-5-71	2-6-71	7-6-71	17-6-71	L.S.
18.	The Manipur Appropriation (No. 2) Bill, 1971	11-6-71	11-6-71	14-6-71	19-6-71	L.S.
19.	The Appropriation (Railways) (No. 2) Bill, 1971	15-6-71	15-6-71	17-6-71	23-6-71	L.S.
20.	The Bengal Finance (Sales Tax) (Delhi Validation of Appointments and Proceedings) Bill, 1971	3-6-71	14-6-71	16-6-71	23-6-71	L.S.
21.	The Gold (Control) Amendment Bill, 1971	1-6-71	14-6-71	17-6-71	24-6-71	L.S.
22.	The Salaries and Allowances of Officers of Parliament (Amendment) Bill, 1971	4-6-71	16-6-71	21-6-71	24-6-71	L.S.
23.	The Mysore State Legislature (Delegation of Powers) Bill, 1971	14-6-71	15-6-71	22-6-71	26-6-71	R.S.
24.	The Delhi Sikh Gurdwaras (Management) Bill, 1971	14-6-71	16-6-71	22-6-71	26-6-71	R.S.
25.	The Punjab Appropriation Bill, 1971	21-6-71	21-6-71	23-6-71	28-6-71	L.S.
26.	The Maintenance of Internal Security Bill, 1971	3-6-71	18-6-71	25-6-71	2-7-71	L.S.
27.	The Mysore Appropriation (No. 2) Bill, 1971	23-7-71	23-7-71	27-7-71	30-7-71	L.S.
28.	The West Bengal Appropriation (No. 2) Bill, 1971	26-7-71	26-7-71	27-7-71	30-7-71	L.S
29.	The Gujarat Appropriation Bill, 1971	23-7-71	23-7-71	26-7-71	30-7-71	L.S.
30.	The Appropriation (No. 2) Bill, 1971	21-7-71	21-7-71	30-7-71	31-7-71	L.S.

*L.S. stands for Lok Sabha and R.S. for Rajya Sabha.

1	2	3	4	5	6	7
31.	The West Bengal State Legislature (Delegation of Powers) Bill, 1971	16-7-71	26-7-71	30-7-71	7-8-71	L.S.
32.	The Finance (No. 2) Bill, 1971	28-5-71	31-7-71	5-8-71	10-8-71	L.S.
33.	The Indian Telegraph (Amendment) Bill, 1971*	17-12-70	26-5-71	9-8-71	10-8-71	R.S.
34.	The Medical Termination of Pregnancy Bill, 1971	17-11-69	27-5-71	2-8-71	10-8-71	R.S.
35.	The Gujarat State Legislature (Delegation of Powers) Bill, 1971	22-6-71	19-7-71	2-8-71	10-8-71	R.S.
36.	The Punjab State Legislature (Delegation of Powers) Bill, 1971	22-6-71	19-7-71	5-8-71	10-8-71	R.S.
37.	The Central Board of Direct Taxes (Validation of Proceedings) Bill, 1971	9-7-71	31-7-71	9-8-71	14-8-71	L.S.
38.	The Appropriation (No. 3) Bill, 1971	9-8-71	9-8-71	12-8-71	15-8-71	L.S.
39.	The Agricultural Refinance Corporation (Amendment) Bill, 1971	18-6-71	31-7-71	5-8-71	15-8-71	L.S.
40.	The Public Premises (Eviction of Unauthorised Occupants) Bill, 1971	5-7-71	31-7-71	14-8-71	23-8-71	L.S.
41.	The Constitution (Twenty-fourth Amendment) Bill, 1971	28-7-71	4-8-71	11-8-71	5-11-71	L.S.
42.	The Prevention of Food Adulteration (Amendment) Bill, 1971	29-7-71	12-8-71	18-11-71	30-11-71	L.S.
43.	The Defence of India Bill, 1971	4-12-71	4-12-71	4-12-71	4-12-71	L.S.
44.	The International Airports Authority Bill, 1971	9-7-71	31-7-71	22-11-71	8-12-71	L.S.
45.	The Stamp and Excise Duties (Amendment) Bill, 1971	23-11-71	26-11-71	2-12-71	8-12-71	L.S.
46.	The Industrial Disputes (Amendment) Bill, 1971	9-8-71	16-11-71	29-11-71	8-12-71	R.S.
47.	The Railways Passengers Fares Bill, 1971	22-11-71	25-11-71	1-12-71	9-12-71	L.S.
48.	The Tax on Postal Articles Bill, 1971	22-11-71	25-11-71	1-12-71	9-12-71	L.S.
49.	The Inland Air Travel Tax Bill, 1971	22-11-71	25-11-71	2-12-71	9-12-71	L.S.
50.	The Air Corporations (Amendment) Bill, 1971	22-7-71	22-11-71	3-12-71	9-12-71	R.S.
51.	The Emergency Risks (Goods) Insurance Bill, 1971	8-12-71	8-12-71	9-12-71	10-12-71	L.S.
52.	The Emergency Risks (Undertakings) Insurance Bill, 1971	8-12-71	8-12-71	9-12-71	10-12-71	L.S.
53.	The Small Coins (Offences) Bill, 1971	22-11-71	24-11-71	2-12-71	11-12-71	L.S.
54.	The Forward Contracts (Regulation) Amendment Bill, 1971	18-11-71	24-11-71	2-12-71	11-12-71	L.S.
55.	The Coal Bearing Areas (Acquisition and Development) Amendment and Validation Bill, 1971	2-8-71	12-8-71	23-11-71	11-12-71	L.S.
56.	The Arms (Amendment) Bill, 1971	3-8-71	17-11-71	2-12-71	13-12-71	R.S.
57.	The Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Bill, 1971	11-8-71	15-11-71	24-11-71	15-12-71	L.S.
58.	The Visva-Bharati (Amendment) Bill, 1971	26-11-71	29-11-71	4-12-71	15-12-71	L.S.
59.	The Appropriation (Railways) (No. 3) Bill, 1971	9-12-71	9-12-71	14-12-71	15-12-71	L.S.
60.	The Naval and Aircraft Prize Bill, 1971	15-12-71	15-12-71	16-12-71	16-12-71	L.S.
61.	The Appropriation (No. 4) Bill, 1971	14-12-71	14-12-71	16-12-71	18-12-71	L.S.
62.	The Punjab Appropriation (No. 2) Bill, 1971	14-12-71	14-12-71	16-12-71	18-12-71	L.S.
63.	The Companies (Surcharge on Income-Tax) Bill, 1971	15-12-71	16-12-71	21-12-71	23-12-71	L.S.
64.	The Jayanti Shipping Company (Acquisition of Shares) Bill, 1971	26-11-71	4-12-71	13-12-71	23-12-71	L.S.
65.	The Coking Coal Mines (Emergency Provisions) Bill, 1971	6-12-71	13-12-71	15-12-71	23-12-71	L.S.
66.	The Asian Refractories Limited (Acquisition of Undertaking) Bill, 1971	6-12-71	10-12-71	14-12-71	23-12-71	L.S.
67.	The Essential Commodities (Amendment) Bill, 1971	14-12-71	16-12-71	18-12-71	23-12-71	R.S.
68.	The Indian Tariff (Amendment) Bill, 1971	15-12-71	16-12-71	21-12-71	23-12-71	L.S.

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* The Bill was introduced in the Rajya Sabha as "The Indian Telegraph (Second Amendment) Bill 1970". The short title of the Bill was changed to "The Indian Telegraph (Amendment) Bill 1971" when passed by the Rajya Sabha.

1	2	3	4	5	6	7
69.	The Uttar Pradesh Cantonments (Control of Rent and Eviction) (Repeal) Bill, 1971	12-8-71	17-11-71	18-12-71	23-12-71	R.S.
70.	The Prevention of Insults to National Honour Bill, 1971	24-5-71	12-8-71 20-12-71*	24-11-71	23-12-71	L.S.
71.	The Contempt of Courts Bill, 1971	29-2-68	22-11-71	20-12-71	24-12-71	R.S.
72.	The Delhi Road Transport Laws (Amendment) Bill, 1971	10-12-71	17-12-71	23-12-71	24-12-71	L.S.
73.	The Industries (Development and Regulation) Amendment Bill, 1971	10-12-71	16-12-71	23-12-71	24-12-71	L.S.
74.	The Union Territories Taxation Laws (Amendment) Bill, 1971	17-12-71	18-12-71	23-12-71	24-12-71	L.S.
75.	The Personal Injuries (Emergency Provisions) Amendment Bill, 1971	15-12-71	16-12-71	21-12-71	25-12-71	L.S.
76.	The Personal Injuries (Compensation Insurance) Amendment Bill, 1971	15-12-71	16-12-71	21-12-71	25-12-71	L.S.
77.	The Manipur (Hill Areas) District Councils Bill, 1971	29-11-71	9-12-71	14-12-71	26-12-71	L.S.
78.	The Constitution (Twenty-sixth Amendment) Bill, 1971	9-8-71	2-12-71	9-12-71	28-12-71	L.S.
79.	The Supreme Court Judges (Conditions of Service) Amendment Bill, 1971	21-12-71	22-12-71	24-12-71	30-12-71	L.S.
80.	The High Court Judges (Conditions of Service) Amendment Bill, 1971	21-12-71	22-12-71	24-12-71	30-12-71	L.S.
81.	The Commissions of Inquiry (Amendment) Bill, 1971	18-11-71	29-11-71	20-12-71	30-12-71	L.S.
82.	The Companies (Amendment) Bill, 1971	21-12-71	21-12-71	24-12-71	30-12-71	L.S.
83.	The North-Eastern Areas (Reorganisation) Bill, 1971	9-12-71	15-12-71	21-12-71	30-12-71	L.S.
84.	The Delhi Sikh Gurdwaras Bill, 1971	22-12-71	22-12-71	24-12-71	30-12-71	L.S.
85.	The Constitution (Twenty-seventh Amendment) Bill, 1971	21-12-71	21-12-71	23-12-71	30-12-71	L.S.
86.	The Government of Union Territories (Amendment) Bill, 1971	21-12-71	21-12-71	24-12-71	30-12-71	L.S.
87.	The North-Eastern Council Bill, 1971	22-12-71	22-12-71	24-12-71	30-12-71	L.S.

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* Amendment made by the Rajya Sabha on 24-11-71, considered and agreed to by the Lok Sabha on 20-12-71.

Note: All the above-mentioned Bills were Government Bills. The Constitution (Twenty-fifth Amendment) Bill, 1971 was introduced in the Lok Sabha on 28-7-71, approved by it on 1-12-71, by the Rajya Sabha on 8-12-71 and received President's assent on 20-4-72.

25 IMPORTANT EVENTS OF 1971

JANUARY	2	Congress (O), Jana Sangh and SSP form a three-party front for the Fifth General Elections.
	4	Tamil Nadu State Assembly dissolved; fresh Assembly elections to be held along with the General Elections to the Lok Sabha.
	8	Swatantra Party decides to join the front formed by the Congress (O), Jana Sangh and SSP for election purposes.
	9	Orissa Ministry under R.N. Singh Deo resigns; dissolution of the State Assembly recommended by the outgoing Chief Minister.
	—	Reserve Bank raises bank rate from five to six per cent.
	11	Orissa brought under President's rule; State Assembly suspended.
	15	Tamil Nadu Government accepts the recommendation of the expert committee on the medium of instruction in colleges to allow students to choose their medium.
	18	PSP leader Nath Pai dies of heart attack.
	23	Orissa Assembly dissolved; fresh Assembly elections ordered.
	25	The Election Commission allots the symbol of "calf with a cow" to Congress (R) and "charkha being plied by a woman" to Congress (O).
	—	Prime Minister Indira Gandhi inaugurates the State of Himachal Pradesh.
	29	Tamil Nadu High Court declares invalid the Presidential Order of April 1960 requiring Central Government employees to undergo in-service training in Hindi.
	30	Indian Airlines Fokker Friendship aircraft, on a regular flight from Srinagar to Jammu, hijacked to Lahore.
FEBRUARY	2	Hijacked Indian Airlines plane blown up at Lahore airport; India bans overflight of Pak military aircraft across the Indian territory.
	6	Third World Sanskrit Conference begins in Allahabad.
	18	India establishes first satellite communication link *via* Arvi Earth Station with Goonbilly in Britain.
MARCH	1	Polling in the Fifth General Elections begins all over the country except in the Mandi, Ladakh and Nagpur constituencies; voters also cast their ballots for Tamil Nadu Assembly.
	5	Elections to the Orissa State Assembly held.
	10	Tenth census begins all over the country.
	—	Elections to the West Bengal State Assembly held.
	12	DMK wins 184 of the 234 seats in the Tamil Nadu Assembly.
	14	Congress (R) wins 350 out of 518 seats in the Fifth Lok Sabha.
	—	Orissa Assembly election results declared; no party gains an absolute majority.
	15	DMK Ministry headed by M. Karunanidhi sworn in.
	—	West Bengal Assembly results declared; no party secures an absolute majority.
	18	A new Union Council of Ministers headed by Smt. Indira Gandhi sworn in.
	—	Mysore Chief Minister Veerendra Patil resigns.
	27	Mysore placed under President's rule; State Assembly suspended.
	30	Uttar Pradesh Samyukta Vidhayak Dal Ministry led by T.N. Singh resigns.
	31	Both Houses of Parliament pass resolutions expressing solidarity with the people of East Bengal following the arrest of Sheikh Mujibur

MARCH Rahman on 25 March and West Pakistani army's brutal crackdown.
— Gujarat Government headed by Hitendra Desai resigns.

APRIL 1 India tells the UN that "the scale of human suffering in East Bengal is such that it ceases to be a matter of domestic concern of Pakistan alone".
— Three new meteorological research institutes start functioning at Kodaikanal, Bombay and Poona.
— UP abolishes land revenue on small holdings up to 6¼ acres.
2 A coalition Ministry headed by Ajoy Kumar Mukherjee sworn in in West Bengal.
3 A new Ministry headed by the United Front leader Biswanath Das assumes office in Orissa.
4 Congress(R) Ministry headed by Kamalapati Tripathi formed in UP.
6 India grants asylum to two diplomats, K.M. Shahabuddin and Amjadul Haque, belonging to the Pak High Commission in Delhi.
7 Hitendra Desai sworn in as Chief Minister of Gujarat.
14 Mysore Legislative Assembly dissolved.
15 India protests to Pakistan against "wanton and unprovoked firing" along the East Bengal border.
17 Indian Navy's Sea-King helicopter squadron commissioned at the Cochin naval base.
18 India's first 'Jumbo' jet arrives in Bombay.
— Pak Deputy High Commission in Calcutta declares its allegiance to Bangladesh.
19 Punjab becomes the first State in the country to introduce compulsory education for prisoners.
— Major H.V. Bahuguna, member of the International Everest Expedition, dies of exposure and frostbite.
20 India rejects Pakistan's demand for the return of two of its former diplomats, K.M. Shahabuddin and Amjadul Haque, who had been granted asylum in India.
— A Nike Apache rocket, carrying for the first time an Indian-made sodium payload, launched from Thumba.
— India wins first ever Cricket Test 'rubber' against the West Indies.
24 India protests against "unprovoked and indiscriminate firing" into the Indian territory by the Pakistani Army in East Bengal.
— Pakistan withdraws its Deputy High Commission from Calcutta and asks India to withdraw its mission from Dacca from 26 April.
25 *Rajendra*, the new training ship for Merchant Navy Officers to replace *Dufferin*, launched.
28 In three protest notes India advises the Government of Pakistan to ponder over the serious consequences of the continued provocative activity by the Pakistani Army along the Indian borders.
29 The Central Food Technological Research Institute, Mysore, gets 1971 Industrial Achievement Award of the Institute of Food Technologists, USA, for developing Miltone, a drink like milk.
30 The Union Government sanctions Rs 70.63 crores for the second unit of the Kalpakkam atomic power project near Madras.

MAY 4 Amjad Ali Khan wins the first prize at the second International Music Forum for Asia held in Paris.
5 The Supreme Court declares invalid the circulars dated 15 June 1970 and 2 July 1970 of the Punjabi University, Patiala, making Punjabi in Gurmukhi script the sole medium of instruction and examination in its constituent colleges.

7 The President promulgates Maintenance of Internal Security Ordinance throughout the country except in the State of Jammu and Kashmir.
9 Foundation-stone of the first stage of the Kalinadi Hydel Project laid at Bommanahalli, Mysore.
10 Kerala Governor issues an ordinance nationalising private forests in the State.
11 The Union Government abolishes the "banned lists" of industries for purposes of industrial licensing.
— The Union Irrigation and Power Ministry draws up a ten-year plan to electrify half of the villages in the country by 1981.
13 President Giri promulgates the General Insurance (Emergency Provisions) Ordinance vesting in the Government the management of general insurance companies, both foreign and Indian.
— Gujarat comes under President's rule for the first time since the State came into being; State Assembly dissolved.
19 India's exports record a turnover of Rs 1,535.16 crores during 1970-71 exceeding for the first time the stipulated Plan target of seven per cent annual increase.
— New submarine base of the Indian Navy, *Vir Bahu*, commissioned.
29 Annual Plan (1971–72) allocation finalised at Rs 3,024 crores.

JUNE

1 Bihar Samyukta Vidhayak Dal Ministry led by Karpoori Thakur resigns following defections.
2 Progressive Vidhayak Dal Ministry headed by Bhola Paswan Shastri assumes office in Bihar.
9 India and the USSR call for immediate measures by Pakistan to create conditions in East Bengal which would stop the flight of people to India.
13 Punjab Governor dissolves the State Assembly after accepting the resignation of the Badal Ministry.
15 Punjab comes under President's rule.
16 India and the Soviet Union agree on a five-year plan (1971–75) for joint exploration of minerals in the oceans adjacent to India.
— Foundation-stone of a Rs 5 crores petro-chemical complex laid at Nampura in Lakhimpur district of Assam.
25 West Bengal Ministry headed by Ajoy Kumar Mukherjee resigns; State Assembly dissolved.
— Leh station of AIR, one of the highest in the world, inaugurated.
28 The External Affairs Minister says a political solution "of East Bengal must be acceptable to the people of Bangladesh".
29 West Bengal placed under President's rule.
30 Andhra Pradesh Government abolishes examinations in schools except at the end of class seven and class ten.

JULY

8 Rajasthan Chief Minister Mohan Lal Sukhadia resigns.
9 New Rajasthan Ministry headed by Barkatullah Khan sworn in.
14 India signs the international convention on the suppression of unlawful seizure of aircraft.
15 India and the UN Development Programme sign the plan of operation for setting up a Television Training Institute at Poona.
18 A 100-kw medium wave transmitter commissioned at Alleppey in Kerala.
28 The Constitution (24th Amendment) Bill and the Constitution (25th Amendment) Bill seeking to confer on Parliament the power to amend the fundamental rights and to amend article 31 of the Constitution respectively introduced in the Lok Sabha.

AUGUST 2 Parliament approves the Medical Termination of Pregnancies Bill seeking liberalisation of the abortion law.

5 President Yahya Khan of Pakistan threatens to unleash a war on India.

6 About 500 MPs address a memorandum to the UN Secretary-General U Thant appealing to him to save the life of Sheikh Mujibur Rahman.

9 India and the Soviet Union sign a 20-year Treaty of Peace, Friendship and Co-operation.

— The Constitution (26th Amendment) Bill seeking to end privy purses and privileges of princes introduced in the Lok Sabha.

10 President Yahya Khan of Pakistan repeats his threat to unleash a war on India.

11 Parliament approves the Constitution (24th Amendment) Bill, 1971.

— India and the USSR call for "urgent steps for the achievement of a political solution in East Bengal".

12 Indian mission staff in Dacca and Pakistan's former Deputy High Commission staff in Calcutta and their families repatriated.

13 India and Nepal sign a new five-year Trade and Transit Treaty.

— The Delhi High Court holds Parliament supreme in regard to matters of its deliberations while dismissing a writ petition challenging the competence of Parliament to consider and pass the Constitution (24th Amendment) Bill and the Constitution (25th Amendment) Bill.

18 Indo-Soviet Treaty of Peace, Friendship and Co-operation comes into force.

24 India wins cricket Test 'rubber' against England for the first time on English soil.

27 Kalol-Navagam-Koyali pipeline commissioned in Gujarat.

31 Dr. M.S. Swaminathan of the Indian Agricultural Research Institute receives the 1971 Raman Magsaysay Award for community leadership.

SEPTEMBER 6 Prime Minister Indira Gandhi commissions 24-mw hydel power station at Chenani in Jammu and Kashmir.

15 Andhra Pradesh Chief Minister Brahmananda Reddy resigns.

22 The Union Government sets up a National Committee on the Status of Women in India.

27 Prime Minister Indira Gandhi arrives in Moscow on a state visit to the USSR.

30 A new Ministry headed by P.V. Narasimha Rao assumes office in Andhra Pradesh.

OCTOBER 2 President Giri dedicates Gandhi Sadan in New Delhi, formerly Birla House, to the Nation.

5 India and West Germany sign a five-year agreement on developing peaceful uses of atomic energy.

13 President Giri arrives in Teheran to attend the 2,500th anniversary of the Persian monarchy.

14 Work on Vijayanagar steel plant in Mysore inaugurated.

16 The President promulgates an ordinance taking over the management of 214 coking coal mines in Bihar and West Bengal.

17 The President promulgates the Jayanti Shipping Company (Acquisition of Shares) Ordinance, 1971, nationalising the company.

21 The Supreme Court upholds the constitutional validity of the Wealth Tax Act as amended by the Finance Act, 1969.

24 Prime Minister Indira Gandhi leaves on a tour of five European nations and the USA to meet the leaders of these countries for an exchange of views on the situation created by the influx of 10 million Bangladesh refugees into India.

OCTOBER	25	The Union Government sets up the National Committee on Science and Technology.
NOVEMBER	1	Tripura placed under President's rule.
	—	Severe cyclone hits Orissa.
	7	Rs 4.87-crore dry dock at the Hindustan Shipyard, Visakhapatnam, inaugurated.
	11	The Supreme Court upholds the Election Commission's order that for the purpose of allotment of symbols for elections, Congress(R) is the Indian National Congress.
	12	The Atomic Energy Department draws up a plan to train 3,000 scientists in the next ten years.
	18	Defence Ministry announces the formation of India's second naval fleet—Eastern Fleet—to be based at Visakhapatnam.
	21	Prime Minister Indira Gandhi lays the foundation-stone of a Rs 17.59-crore irrigation project at Dharoi near Ahmedabad.
	22	Indian Air Force Gnats shoot down three intruding Pak planes over Boyra near Calcutta.
	23	India elected to the UN Security Council for a two-year term beginning 1 January 1972.
	30	Prime Minister Indira Gandhi calls for the withdrawal of West Pakistani troops from East Bengal to prove that General Yahya Khan wanted a peaceful solution of the crisis.
DECEMBER	3	President Giri declares a state of emergency in the country following Pakistan's treacherous attack on Indian air bases in the eastern and western sectors.
	—	Pakistan declares war against India.
	3-4	Indian Navy sinks two Pakistani destroyers in a naval action off Karachi port. A Pakistani submarine—Ghazi—two gunboats and six power boats also sunk in the Bay of Bengal.
	4	Following Pakistan's attack on India on 3 December, Indian forces enter East Bengal in support of Mukti Bahini, the Bangladesh freedom fighters.
	—	India informs the UN of Pak aggression on India.
	6	India recognises the People's Republic of Bangladesh.
	—	Pakistan snaps diplomatic ties with India.
	7	Indian forces and Mukti Bahini liberate the important towns of Jessore, Sylhet, Lalmonirhat, Meherpur and Sunamganj in Bangladesh. Dera Baba Nanak bridge in the Punjab sector captured.
	8	Parliament approves the Constitution (25th Amendment) Bill, 1971.
	—	Indian forces liberate the important towns of Brahmanbaria, Satkhira, Naudaha, Magura, Dangapur, Durgapur and Srimangal in Bangladesh. Amrochak railway station in Sialkot district and the Chhor airfield in the Sind Province of West Pakistan captured.
	—	General Manekshaw, Chief of the Indian Army, calls upon Pak troops in Bangladesh to surrender.
	9	Parliament approves the Constitution (26th Amendment) Bill, 1971.
	—	Indian troops capture Nagarparkar, a tehsil town in the Tharparkar district of Sind. Important river ports of Ashuganj, Daudkandi and Chandpur on the Meghna river in Bangladesh also liberated.
	—	Bangladesh mission opens in New Delhi.
	10	India and Bangladesh sign an agreement setting up a unified military command.

DECEMBER 11 Indian forces liberate the important towns of Kushtia, Mymensingh, Hili and Jamalpur in Bangladesh.

— General Manekshaw again calls upon Pak troops in Bangladesh to surrender.

12 Syed Mir Qasim sworn in as the Chief Minister of Jammu and Kashmir following the death of G.M. Sadiq.

13 Prime Minister Indira Gandhi tells U Thant that India is ready for a cease-fire and withdrawal of forces provided Pakistan withdraws its forces from Bangladesh and reaches a peaceful settlement with its leaders.

— General Manekshaw again calls upon the Pakistani Army in Bangladesh to surrender and avoid senseless shedding of blood.

15 Lt.-Gen. A.A.K. Niazi, Commander of the Pakistan occupation forces in Bangladesh, seeks a cease-fire; General Manekshaw asks him to surrender unconditionally by 9 a.m. on 16 December.

16 Lt.-Gen. Arora, General Officer Commanding-in-Chief, Eastern Command, accepts unconditional surrender of Pak forces in Dacca.

— Prime Minister Indira Gandhi announces unilateral cease-fire on the western front with effect from 20.00 hours on 17 December.

17 India's unilateral cease-fire offer accepted by Yahya Khan; 14-day Indo-Pak war ends.

18 President Giri confers the Nation's highest award, *Bharat Ratna*, on Prime Minister Indira Gandhi.

19 New Delhi and Calcutta telephonically linked with Dacca.

21 Lok Sabha passes the Newspaper (Price Control) Bill seeking to empower the Government to fix the price of newspapers.

— Parliament approves the North-Eastern Areas (Reorganisation) Bill seeking to reorganise the north-eastern region.

23 Parliament approves the Constitution (27th Amendment) Bill seeking to include the Union Territory of Mizoram in article 239A of the Constitution to provide for a legislature and a Council of Ministers for the territory.

27 Bihar Ministry headed by Bhola Paswan Shastri resigns.

29 Bihar Assembly dissolved.

30 Dr Vikram A. Sarabhai, Chairman of the Atomic Energy Commission, dies at Kovalam near Trivandrum.

APPENDICES

I CIVILIAN AWARDS

BHARAT RATNA The award is made for exceptional work for the advancement of art, literature and science and in recognition of public service of the highest order.

Recipient (1971) Smt. Indira Gandhi, Prime Minister of India

PADMA VIBHUSHAN The award is made for exceptional and distinguished service in any field, including service rendered by Government servants.

Recipients (1972)

1. General Sam Hormusji Framji Jamshedji Manekshaw, MC, Chief of the Army Staff
2. Admiral Sardarilal Mathradas Nanda, PVSM, Chief of the Naval Staff
3. Air Chief Marshal Pratap Chandra Lal, DFC, Chief of the Air Staff
4. Dr Aditya Nath Jha, formerly Lt. Governor, Delhi (posthumous)
5. Ghulam Mohamed Sadiq, formerly Chief Minister of Jammu and Kashmir (posthumous)
6. Hormasji Maneckji Seervai, Attorney-General, Government of Maharashtra
7. Dr Jivraj Narain Mehta, Member of Parliament, Amreli, Gujarat
8. Dr Pralhad Balacharya Gajendragadkar, Chairman, Law Commission, New Delhi
9. Dr Vikram Ambalal Sarabhai, formerly Chairman, Atomic Energy Commission, Bombay (posthumous)

PADMA BHUSHAN The award is made for distinguished service of a high order in any field, including service rendered by Government servants.

Recipients (1972)

1. Lt.-Gen. Gopal Gurunath Bewoor, PVSM, General Officer Commanding-in-Chief, Southern Command
2. Lt.-Gen. Kunhiraman Palat Candeth, PVSM, General Officer Commanding-in-Chief, Western Command
3. Lt.-Gen. Jagjit Singh Aurora, PVSM, General Officer Commanding-in-Chief, Eastern Command
4. Lt.-Gen. Sartaj Singh, GM, General Officer Commanding, XV Corps
5. Lt.-Gen. Khem Karan Singh, MVC, General Officer Commanding, I Corps
6. Lt.-Gen. Sagat Singh, PVSM, General Officer Commanding, IV Corps
7. Lt.-Gen. Tapishwar Narain Raina, MVC, General Officer Commandng, II Corps
8. Maj.-Gen. Inderjit Singh Gill, PVSM, MC, Officiating Director, Military Operations, Army Headquarters
9. Vice Admiral Sourendra Nath Kohli, PVSM, Flag Officer Commanding-in-Chief, Western Naval Command
10. Vice Admiral Nilkanta Krishnan, PVSM, DSC, Flag Officer Commanding-in-Chief, Eastern Naval Command
11. Air Marshal Minoo Merwan Engineer, PVSM, MVC, DFC, Air Officer Commanding-in-Chief, Western Air Command
12. Air Marshal Hari Chand Dewan, PVSM, Air Officer Commanding-in-Chief, Eastern Air Command
13. Khusro Framurz Rustamji, Director-General of Border Security Force, New Delhi
14. Ashwini Kumar, Inspector-General, Border Security Force, Western Frontier, Jullundur
15. Surinder Singh Bedi, Commissioner, Jullundur Division, Jullundur
16. Sirtaj Singh Sahi, Chief Engineer, Drainage, Government of Punjab, Chandigarh
17. Adya Rangacharya, Playwright, Mysore
18. Amrut Vithaldas Mody, Managing Director, Unichem Laboratories, Bombay
19. Ayyagiri Sambasiva Rao, Managing Director, Electronics Corporation of India Ltd., Hyderabad
20. Dr Bal Dattatraya Tilak, Director, National Chemical Laboratory, Poona
21. Dr Baldev Singh, Neurologist, New Delhi
22. Benoy Bhushan Ghosh, formerly Principal Adviser to the Governor of West Bengal (posthumous)

23. Dr. Bhalchandra Nilkanth Purandare, Professor Emeritus, Department of Obstetrics and Gynaecology, KEM Hospital, Bombay
24. Dr Bharat Ram, Industrialist, Delhi
25. Birendra Nath Sircar, Film Producer, Calcutta
26. Chandrika Prasad Srivastava, Chairman and Managing Director, Shipping Corporation of India, Bombay
27. Prof. Dattatraya Yeshwant Phadke, Senior Professor, Tata Institute of Fundamental Research, Bombay
28. Smt. Gulestan Rustom Billimoria, Social Worker, Maharashtra
29. Dr. Jai Krishna, Vice-Chancellor, University of Roorkee, Roorkee
30. Prof Krishnaswami Swaminathan, Chief Editor, Collected Works of Mahatma Gandhi, New Delhi
31. Dr. Lakhumal Hiranand Hiranandani, Surgeon, Maharashtra
32. Prof. L.A. Krishna Iyer, Anthropologist, Palghat, Kerala
33. Madhavrao Khanderao Bagal, Social Worker, Maharashtra
34. Maheshwar Dayal, President of the United Chamber of Trade Associations, Delhi
35. Mohamed Hayath, Chairman, Mysore Power Corporation, Bangalore
36. Dr Mohinder Singh Randhawa, Vice-Chancellor, Punjab Agricultural University, Ludhiana
37. Dr Monkombu Sambasiva Swaminathan, Director-General, Indian Council of Agricultural Research, New Delhi
38. Mandagere Bharadwaj Ramachandra Rao, Geophysicist, formerly Member, Oil and Natural Gas Commission, Dehra Dun
39. Nori Gopala Krishna Murti, Chairman and Managing Director, Water and Power Development Consultancy Service (India) Ltd., New Delhi
40. Papanasam Sivan, Musician, Tamil Nadu
41. Kayalath Pothen Phillip, Journalist, Maharashtra
42. Dr Pran Nath Chhutani, Director, Post-Graduate Institute of Medical Education and Research, Chandigarh
43. Pran Nath Luthra, Additional Secretary, Department of Rehabilitation, Govt. of India, Branch Secretariat, Calcutta
44. Prof Ram Narayan Chakravarti, Director, Indian Institute of Experimental Medicine, Calcutta
45. Dr Shantilal Chhaganlal Sheth, Medical Educationist, Maharashtra
46. Dr Sujoy Bhushan Roy, Professor of Cardiology, All India Institute of Medical Sciences, New Delhi
47. Dr Syed Husain Zaheer, formerly Director-General, Council of Scientific and Industrial Research, New Delhi
48. Tonse Ananth Pai, Chairman, Life Insurance Corporation of India, Bombay
49. Vinayakrao Patwardhan, Musician, Maharashtra
50. Smt. Yashodhara Dasappa, Social Worker, Mysore

PADMA SHRI The award is made for distinguished service in any field, including service rendered by Government servants.

Recipients (1972)

1. Jagdish Lal, Divisional Superintendent, Northern Railway, Jodhpur
2. Surjit Singh Gujral, Divisional Engineer, Northern Railway, Jodhpur
3. Bhuwan Chandra Pande, Inspector-General, Border Security Force Academy, Tekanpur, Gwalior
4. Smt. Mali, wife of Shri Guffar, Village Arai, District Poonch, Jammu and Kashmir
5. Pallessena Ramachandra Rajgopal, Inspector-General, Border Security Force, New Delhi
6. Rajinder Singh, Deputy Commissioner, Gurdaspur, Punjab
7. Sukhbir Singh, Deputy Commissioner, Amritsar, Punjab
8. Swarn Singh Boparai, Deputy Commissioner, Ferozepore, Punjab
9. Vijay Singh, Collector, Sri Ganganagar, Rajasthan
10. Ajit Laxman Wadekar, Cricketer, Bombay
11. Dr Amiya Bhushon Kar, Deputy Director, Central Drug Research Institute, Lucknow
12. Sudhindra Sircar (Badal Sircar), Playwright, Calcutta
13. Badri Prasad Bajoria, Industrialist, Uttar Pradesh
14. Prof. Balasubramaniam Ramamurthi, Professor of Neuro-surgery, Madras Medical College, Madras
15. Bhagavath Subramanya Chandrasekhar, Cricketer, Mysore
16. Bhawani Prasad Tiwari, Writer, Madhya Pradesh
17. Bhimsen Gururaj Joshi, Musician, Maharashtra
18. Brijbir Saran Das, Representative of India in Bhutan
19. Smt. Chandraprava Saikiani, Social Worker, Assam

20. Chandra Shekhar Samal, Additional District Magistrate, Islampur Sub-Division, West Dinajpur District, West Bengal
21. Charles Mark Correa, Architect, Bombay
22. Chiranjit, Chief Producer of Drama, All India Radio, New Delhi
23. Dr Dattatraya Nagappa Pai, Special Officer, Family Planning and Maternal and Child Health Programme, Municipal Corporation, Bombay
24. Debdulal Bandopadhyay, Radio Commentator, Calcutta
25. Dharam Vir Bharati, Writer, Bombay
26. Dr (Mrs) Dorothy Dunning Chacko (Mrs. C. Joseph Chacko), Physician, Gannaur, Haryana
27. Smt. Girija Devi, Musician, Uttar Pradesh
28. Dr Gopaliah Subbukrishna Melkote, Member of Parliament, Hyderabad
29. Dr Gubbi Hampanna Veeranna, Dramatist, Mysore
30. Hari Prasad Jaiswal, Principal Scientific Officer, Electronics and Radar Development Establishment, Bangalore
31. Brig. Harish Chandra, Chief Engineer, Jammu and Kashmir Zone, Government of India
32. Maj. Harsh Vardhan Bahuguna, Mountaineer (posthumous)
33. Himangshu Mohan Choudhury, Sub-Divisional Officer, Sonamura, Tripura
34. Homi Cawas Sethna, Shipbuilding Engineer, Mazagon Dock Ltd., Bombay
35. Hrishikesh Mukherji, Film Producer, Bombay
36. Ishwar Chander Gupta, Chief Engineer, Public Works Department, Government of Haryana, Chandigarh
37. Iyyanki Venkata Ramanayya, Pioneer in Free Public Library Movement, Andhra Pradesh
38. Jagannath Krishan Kate, Educationist, Punjab
39. Kum. Juthika Roy, Musician, West Bengal
40. Kailas Chandra Sengupta, Ambassador of India to Ethiopia
41. Kamal Kanti Naskar, Additional District Magistrate, Bongaon Sub-Division, District 24 Parganas, West Bengal
42. Smt. Kanta Saroop Krishen, Social Worker, Chandigarh
43. Karachur Lingappa Nanjappa, Development Commissioner, Small Scale Industries, New Delhi
44. Dr Katil Narasimha Udupa, Professor of Surgery and Director, Institute of Medical Sciences, Banaras Hindu University, Varanasi
45. Dr K. Kirpal Singh, Dean, Post-Graduate Studies, Punjab Agricultural University, Ludhiana
46. Narayana Krishna Reddy, Painter, Vanves, France
47. Lalgudi Gopalaiyer Jayaraman, Violinist, Tamil Nadu
48. Dr (Miss) Leela Vinayak Phatak, Commissioner, Family Planning, Ministry of Health and Family Planning, Government of India
49. Madras Kandhaswamy Radha, Film Actor, Tamil Nadu
50. Mahendra Kapoor, Play-back Singer, Bombay
51. Dr (Miss) Mary Puthusseril Varghese, Professor and Head of the Department of Physical Medicine and Rehabilitation, Christian Medical College and Hospital, Vellore
52. Mohanmull Chordia, Industrialist, Tamil Nadu
53. Moreshwar Mangesh Wagle, Director of Rural Broadcasting, Government of Maharashtra
54. Mylapore Ponnuswamy Sivagnanam, Litterateur, Tamil Nadu
55. Om Prakash Bahl, General Manager, Ammunition Factory, Kirkee
56. Palahalli Sitaramiah, Social Worker, Mysore
57. Phool Chand Chowdhary, Principal, Salwan Public School, New Delhi
58. Prabhu Dayal Dabriwala, Industrialist, Haryana
59. Pradip Kumar Banerjee, Additional District Magistrate, Cooch Behar District, West Bengal
60. Prof. Pran Nath Mehra, Senior Professor and Head of Botany Department, Punjab University, Chandigarh
61. Dr Prithvi Nath Khoshoo, Assistant Director-General of Health Services (Leprosy), Government of India
62. Puran Lal Batra, Agriculturist, Rohtak, Haryana
63. Puttaparthi Narayanacharya, Litterateur, Andhra Pradesh
64. Raghu Rai, Photographer, New Delhi
65. Rajinder Singh Bedi, Playwright, Bombay
66. Ram Kumar, Painter, New Delhi
67. Ramamurthi Badrinath, District Magistrate, West Tripura District, Agartala
68. Dr Ravivarma Marthanda Varma, Director, All India Institute of Mental Health, Bangalore
69. Samta Prasad, Tabla Player, Uttar Pradesh

70. Dr Balu Sankaran, Director-Professor, Central Institute of Orthopaedics, Safdarjang Hospital, New Delhi
71. Dr (Mrs) Sant Kaur, Medical Officer, Red Cross Family Planning Centre, Chandigarh
72. Smt. Savitri Indrajit Parekh, Artist, Gujarat
73. Shalil Ghosh, Journalist, Maharashtra
74. Sheikh Gulab, Choreographer, Madhya Pradesh
75. Smt. Suchitra Sen, Film Actress, Calcutta
76. Sunil Janah, Photographer, Delhi
77. Surendra Nath Banerjee, Musician, West Bengal
78. Smt. Surrinder Bansidhar Gupta, Social Worker, Delhi
79. Dr Syamnandan Prasad Kishore, Professor and Head of the Department of Hindi, Bihar University, Patna
80. Takhelchangbam Amudon Sharma, Dance Teacher, Manipur
81. Dr Thayil John Cherian, Medical Superintendent, Railway Hospital, Southern Railway, Perambur, Madras
82. Vasudeo Santu Gaitonde, Painter, Bombay
83. Dr (Mrs) Vatsala Samant Choudhry, Medical Superintendent, Kamla Nehru Memorial Hospital, Allahabad
84. Vazhuvoor Bhagyam Ramaiyya Pillai, Dance Teacher, Tamil Nadu
85. Ved Prakash Agnihotri, Horticulturist, New Delhi
86. Vadakantara Subramania Krishnan, Vice-Chancellor, Bhopal University, Bhopal
87. Vishveshwar Nath Langer, Principal, Tashi Namgyal Academy, Gangtok (Sikkim)
88. Dr Virendra Verma, Principal, National Defence Academy, Khadakvasla
89. Kum. Waheeda Rahman, Film Actress, Bombay

II GALLANTRY AWARDS

PARAM VIR CHAKRA	The highest decoration for valour, the Param Vir Chakra, is awarded for the most conspicuous bravery or some daring or pre-eminent act of valour or self-sacrifice in the presence of the enemy, whether on land, at sea or in the air.
Recipients (1972)	1. Maj. Hoshiar Singh 2. Fg. Offr. Nirmal Jit Singh Sekhon (posthumous) 3. 2/Lt. Arun Khetarpal (posthumous) 4. L/Nk. Albert Ekka (posthumous)
MAHA VIR CHAKRA	The Maha Vir Chakra, the second highest decoration, is awarded for acts of conspicuous gallantry in the presence of the enemy, whether on land, at sea or in the air. **Recipients (1972): 76**
VIR CHAKRA	The Vir Chakra is third in the order of awards given for acts of gallantry in the presence of the enemy, whether on land, at sea or in the air. **Recipients (1972): 493**
ASHOK CHAKRA	This medal is awarded for the most conspicuous bravery or some daring or pre-eminent act of valour or self-sacrifice on land, at sea or in the air. **Recipient (1972): None**
KIRTI CHAKRA	This decoration is awarded for conspicuous gallantry. **Recipient (1972): 1**
SHAURYA CHAKRA	This decoration is awarded for an act of gallantry. **Recipient (1972): 30**

III DISTINGUISHED SERVICE AWARDS

PARAM VISHISHT SEVA MEDAL	The Param Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of the "most exceptional" order. **Recipients (1972): 45**

ATI VISHISHT SEVA MEDAL	The Ati Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of "exceptional" order. **Recipients (1972): 127**
VISHISHT SEVA MEDAL	The Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of a high order. **Recipients (1972): 265**

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Correction: On page 7 of "Twenty-five Years in Pictures" in the last line of the caption of the picture appearing at the top *for* "Agreement between India and Pakistan" please *read* "Declaration by India and Pakistan".

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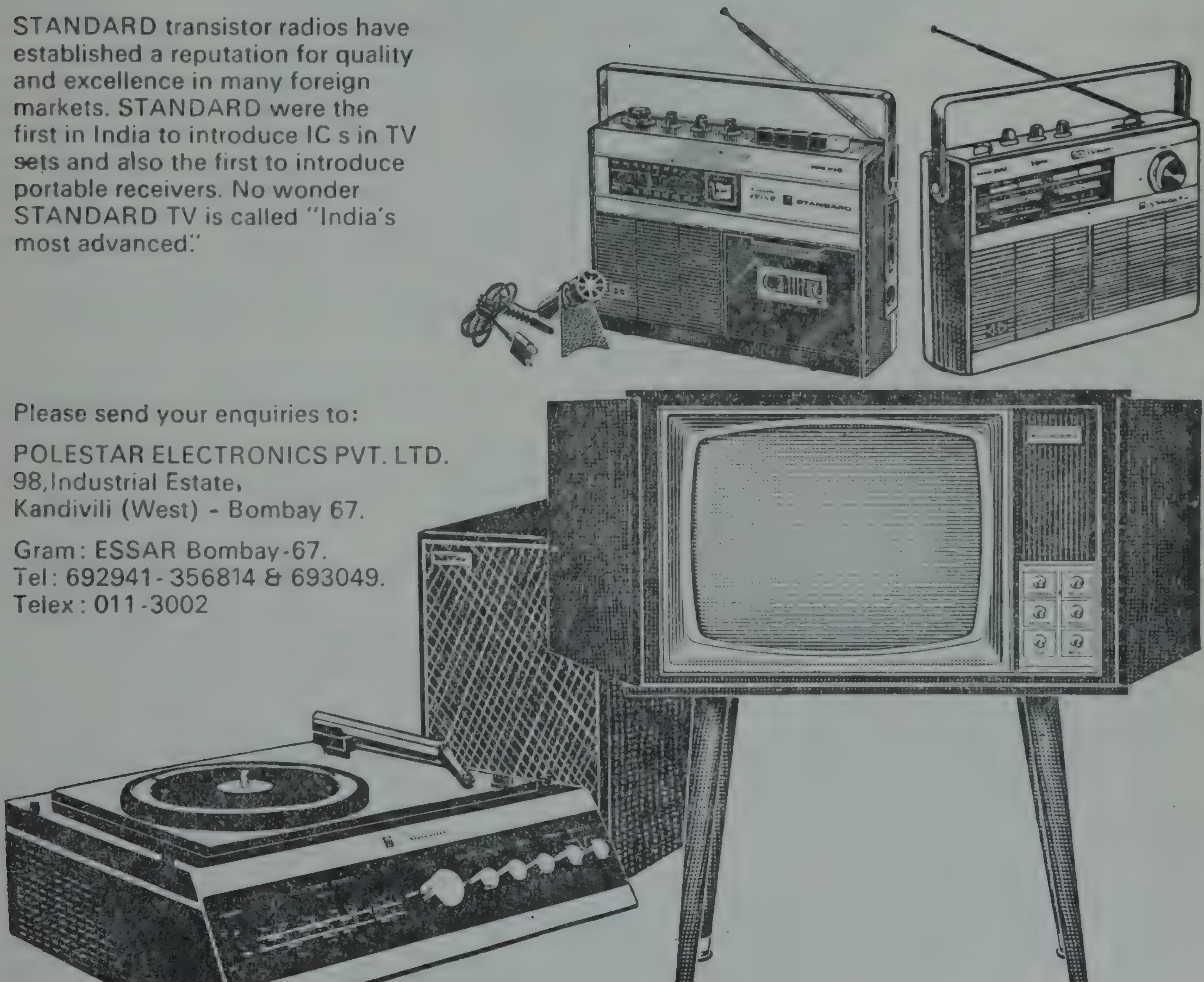

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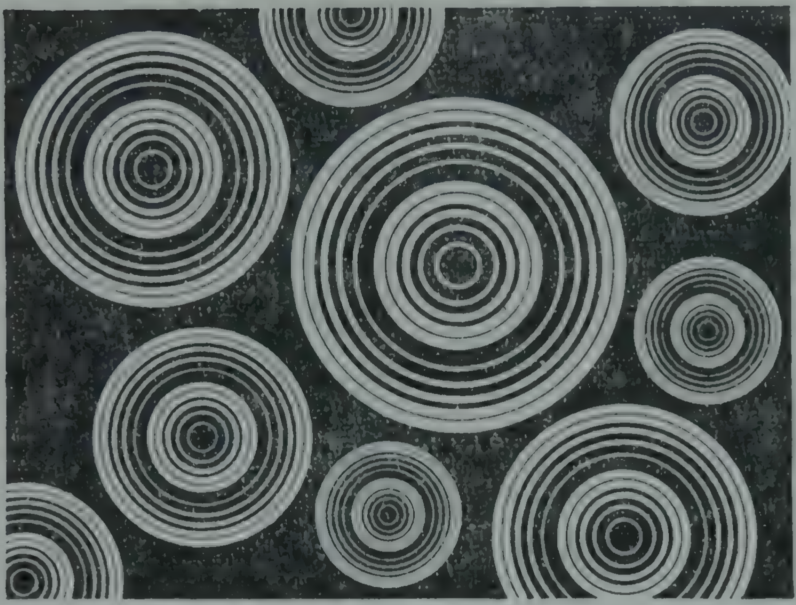

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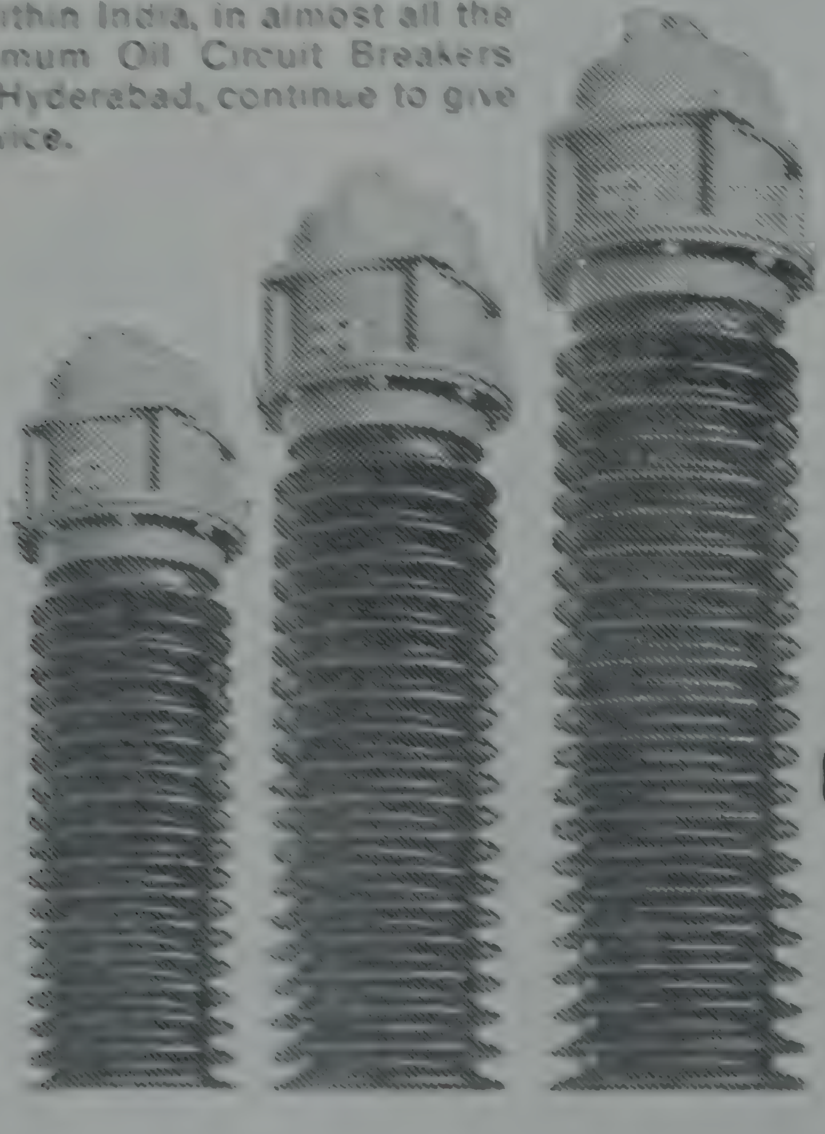

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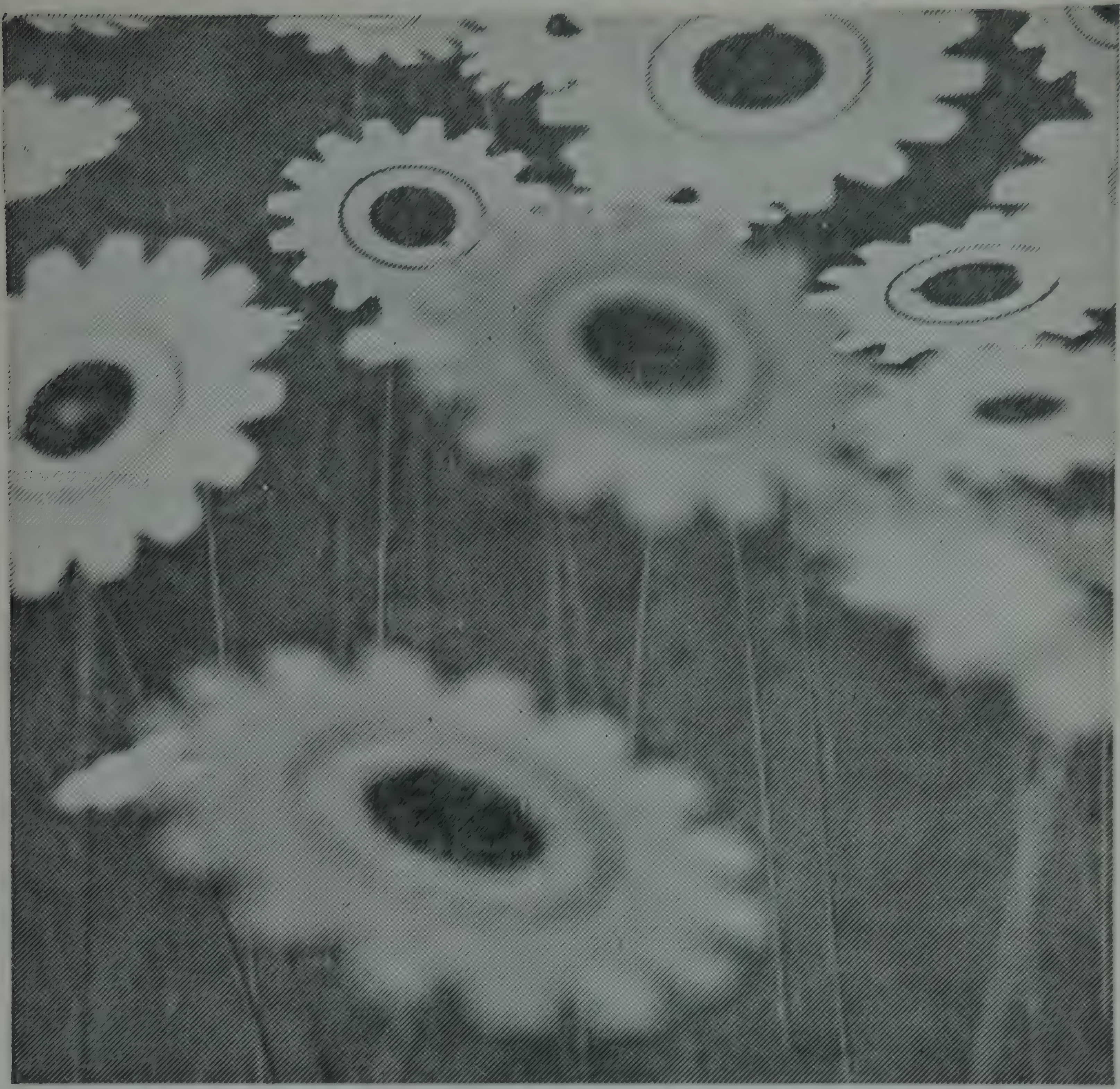

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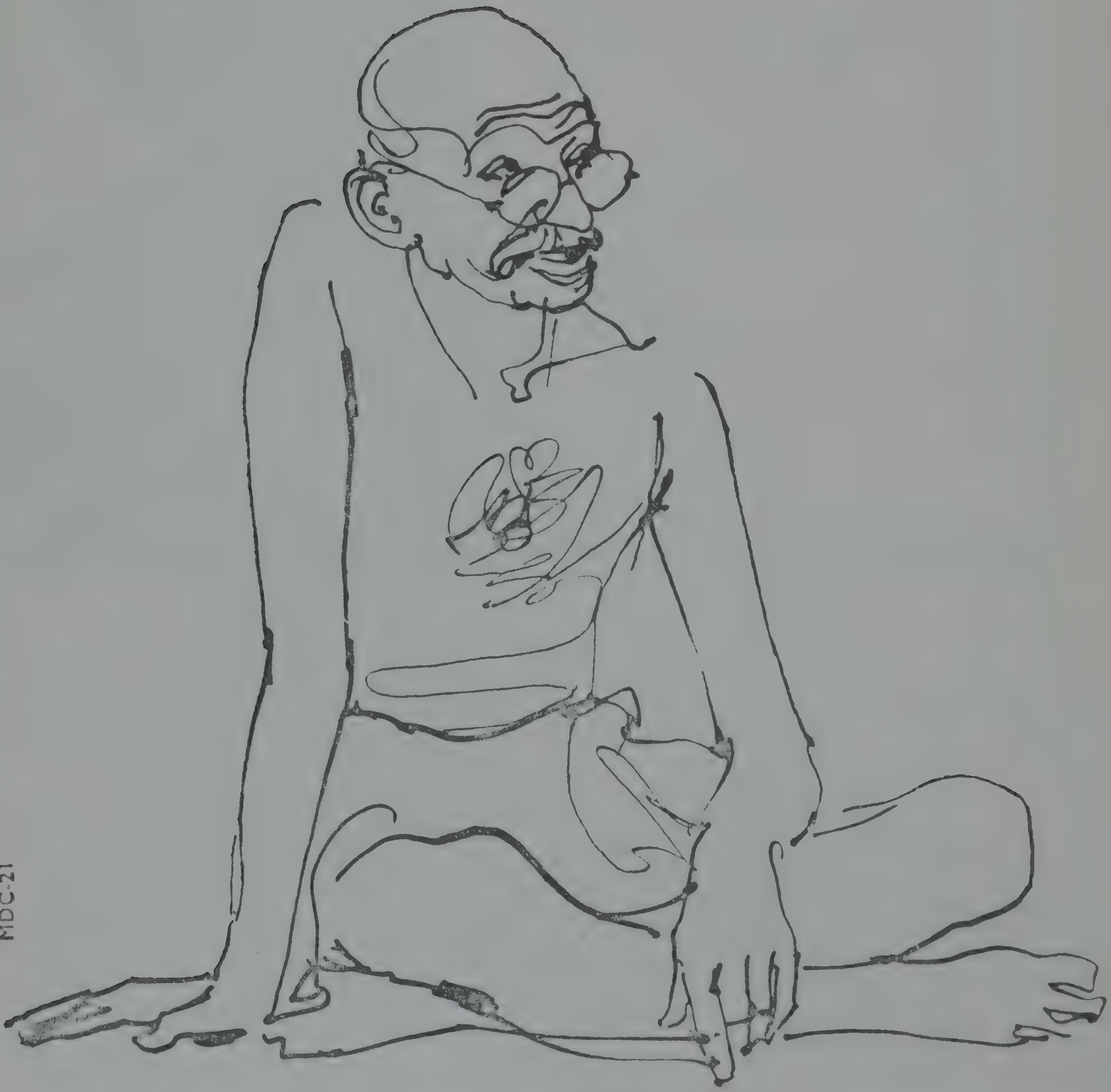

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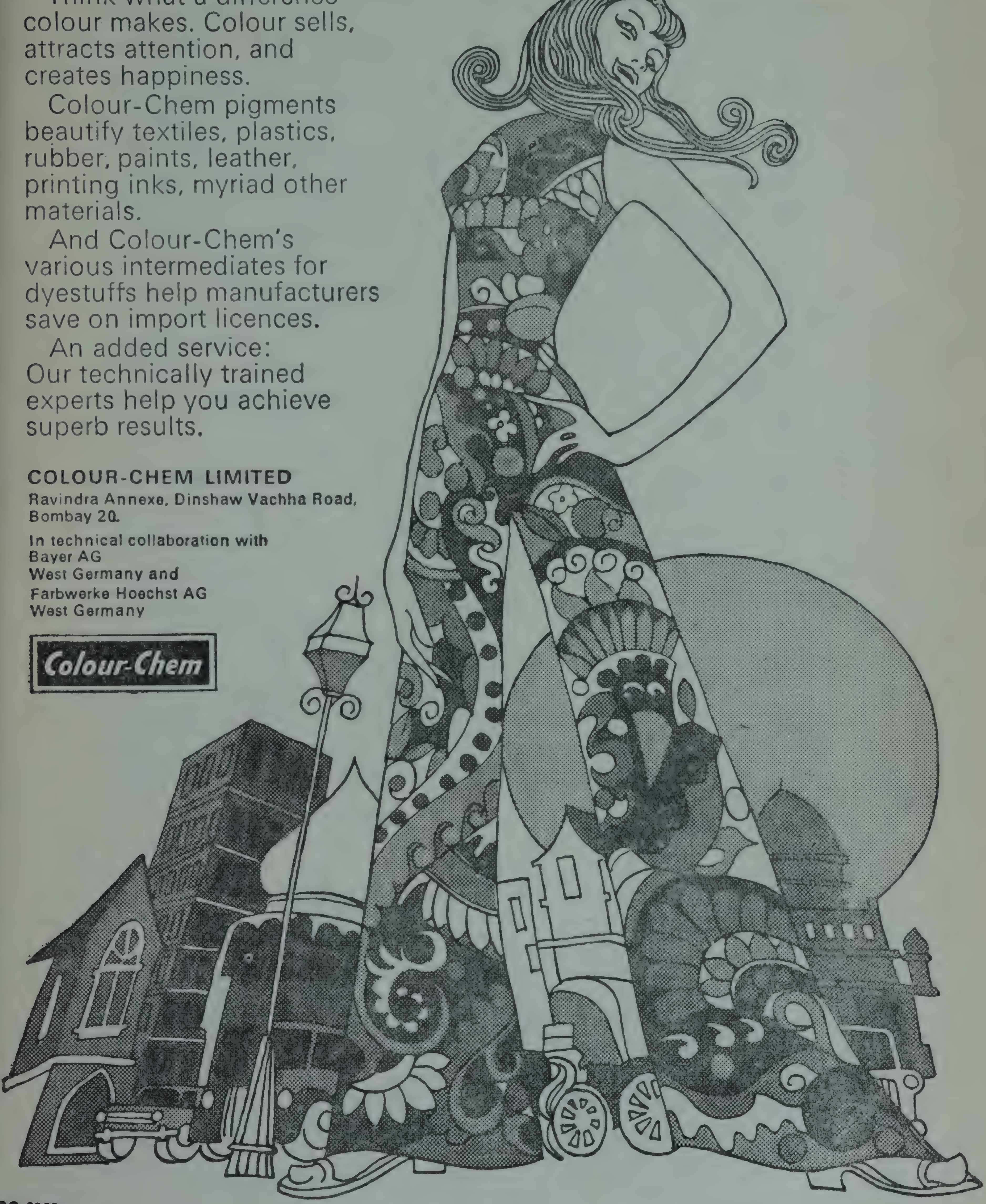

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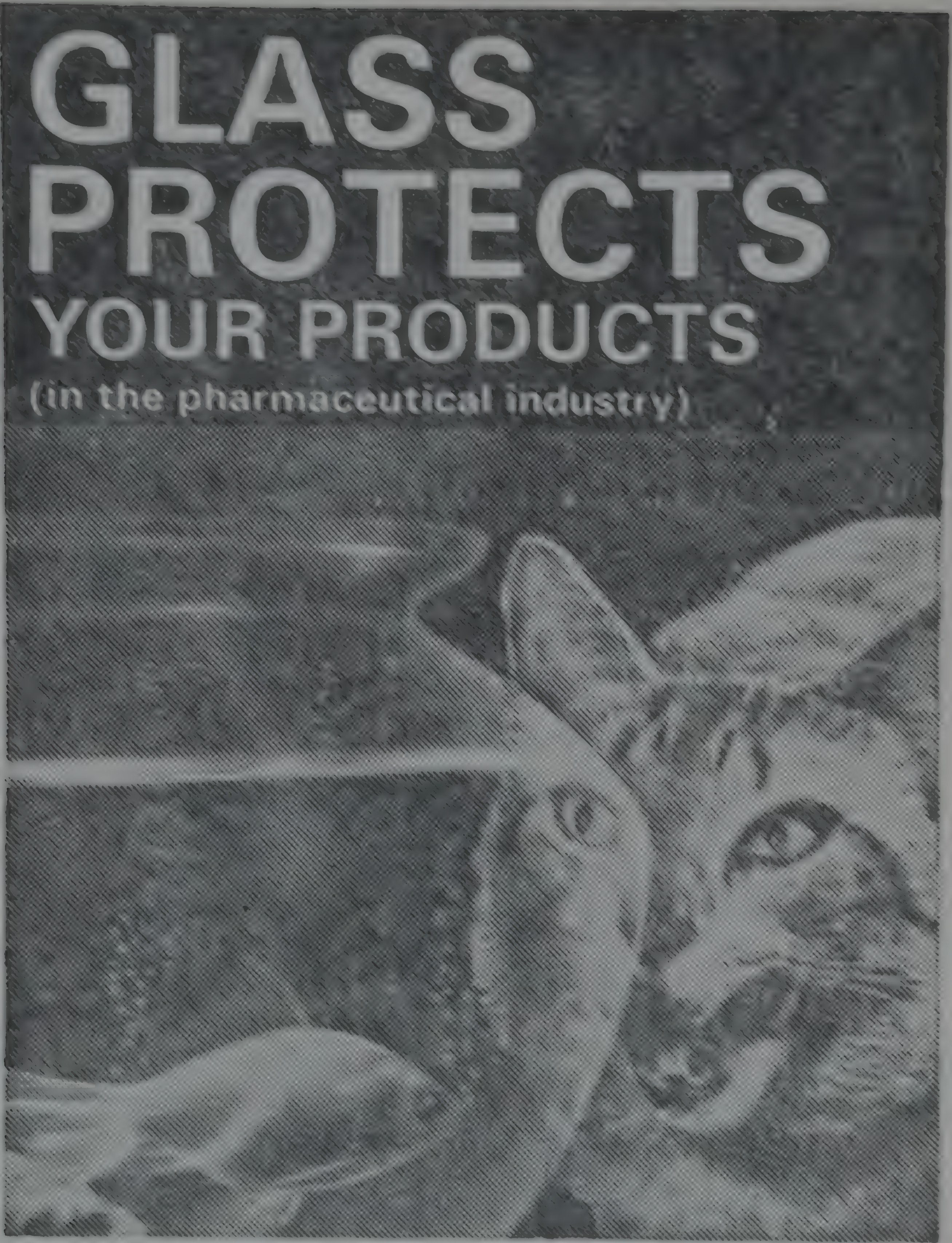

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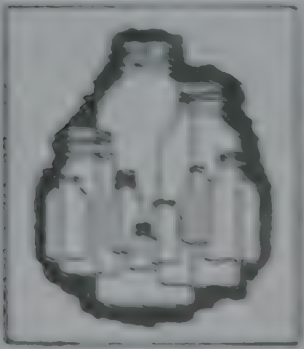

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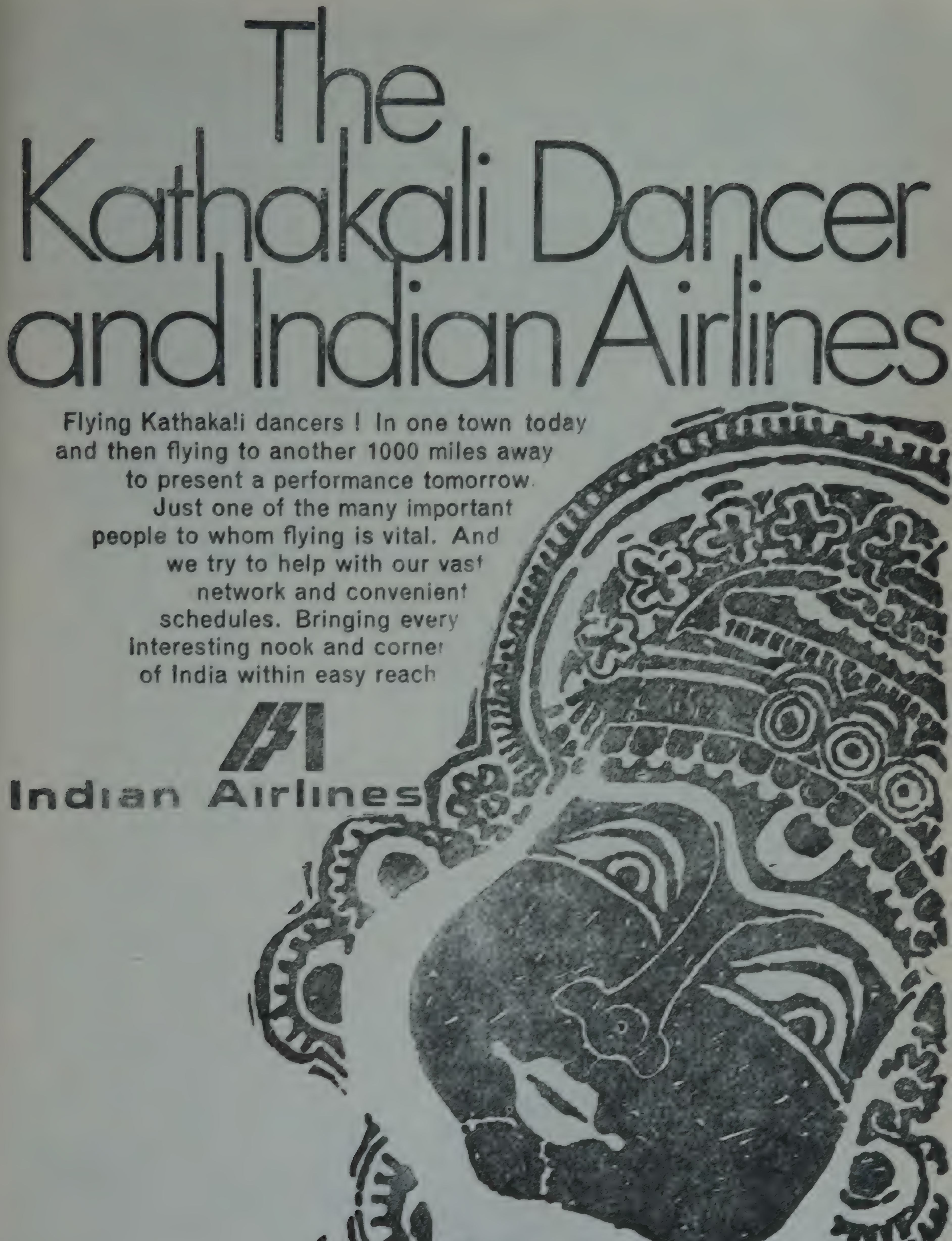

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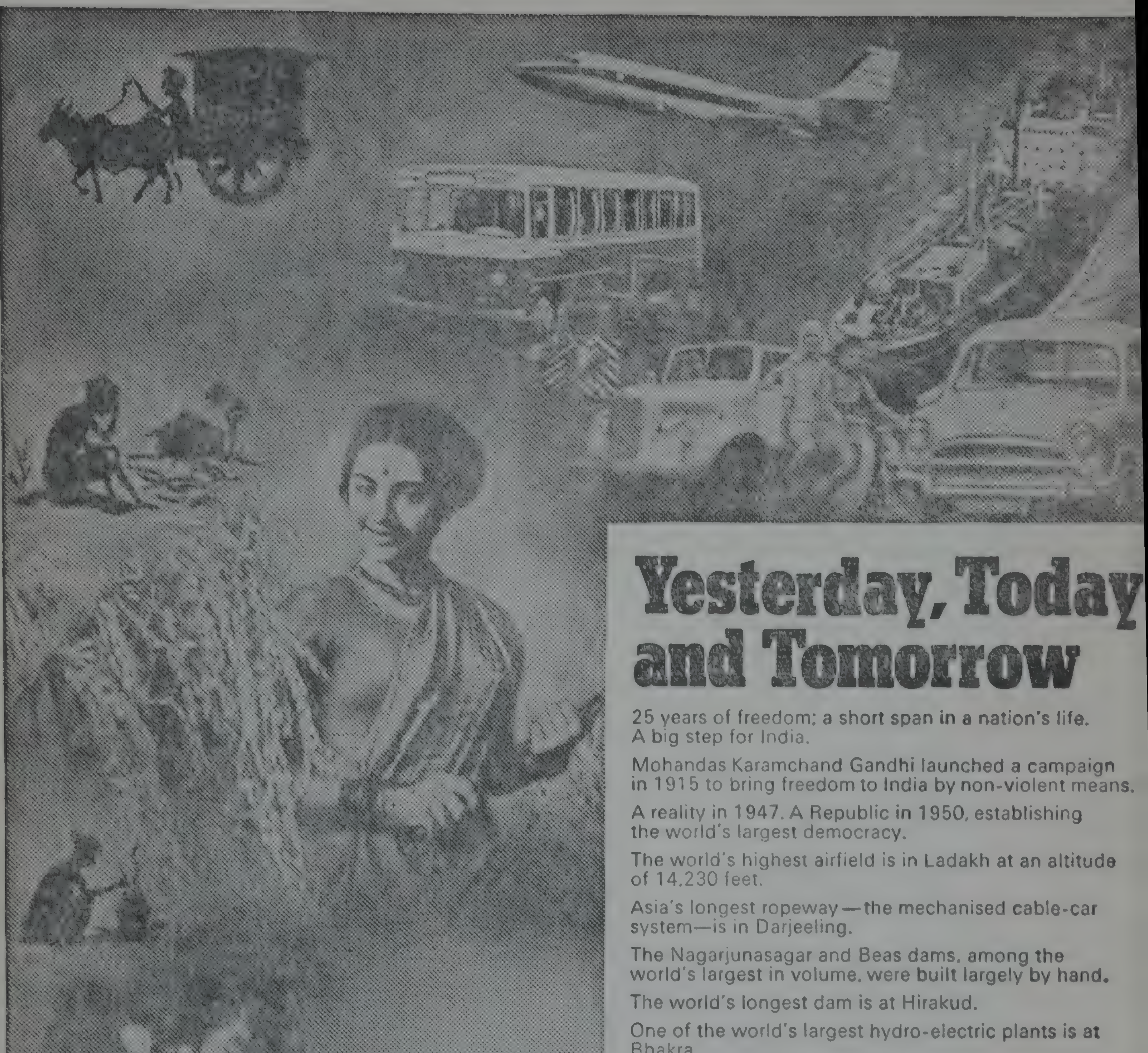

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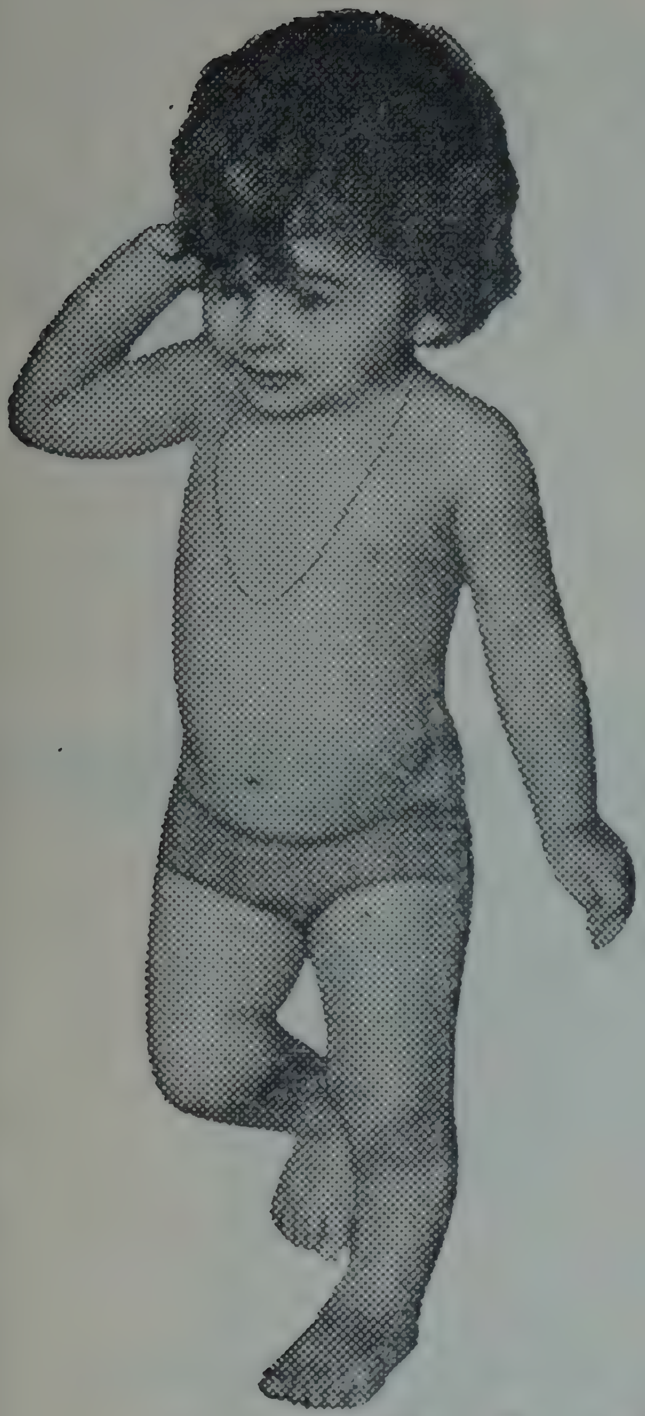

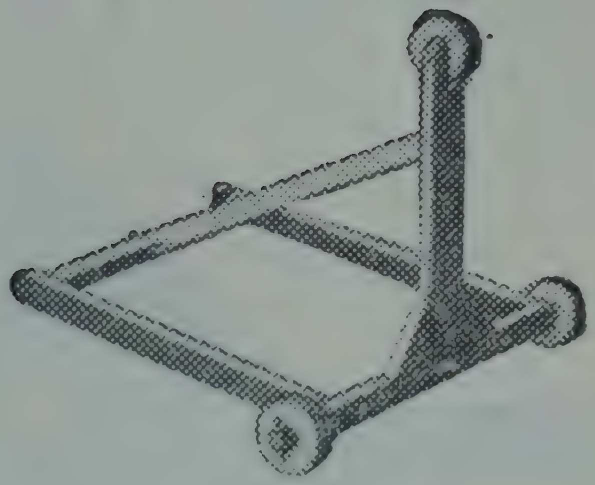

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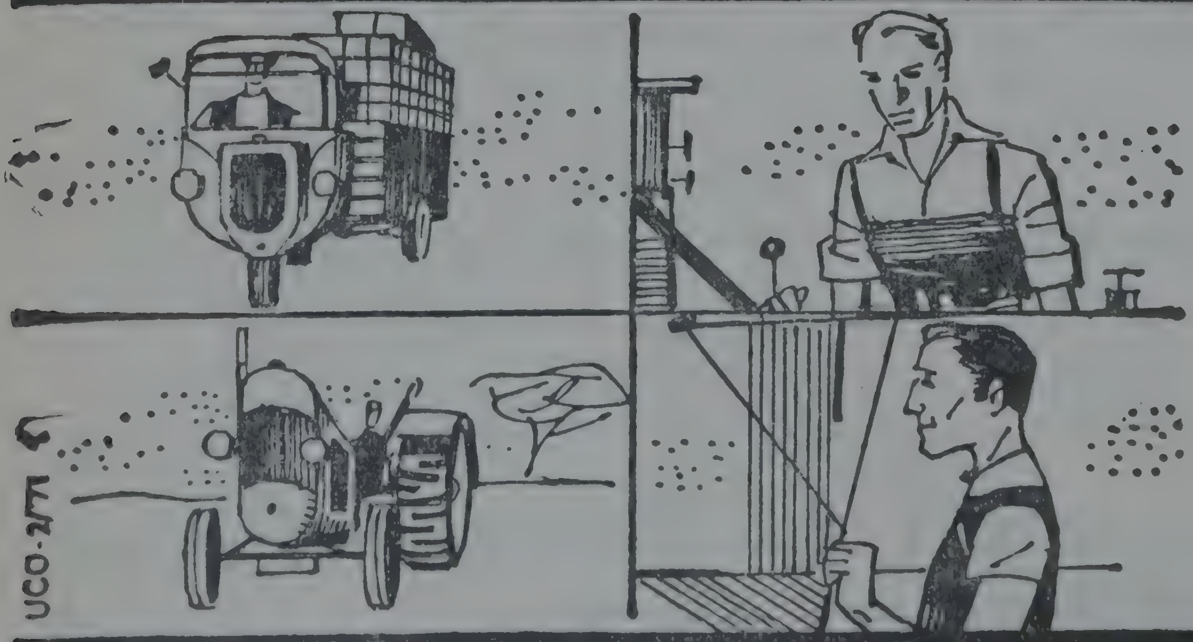

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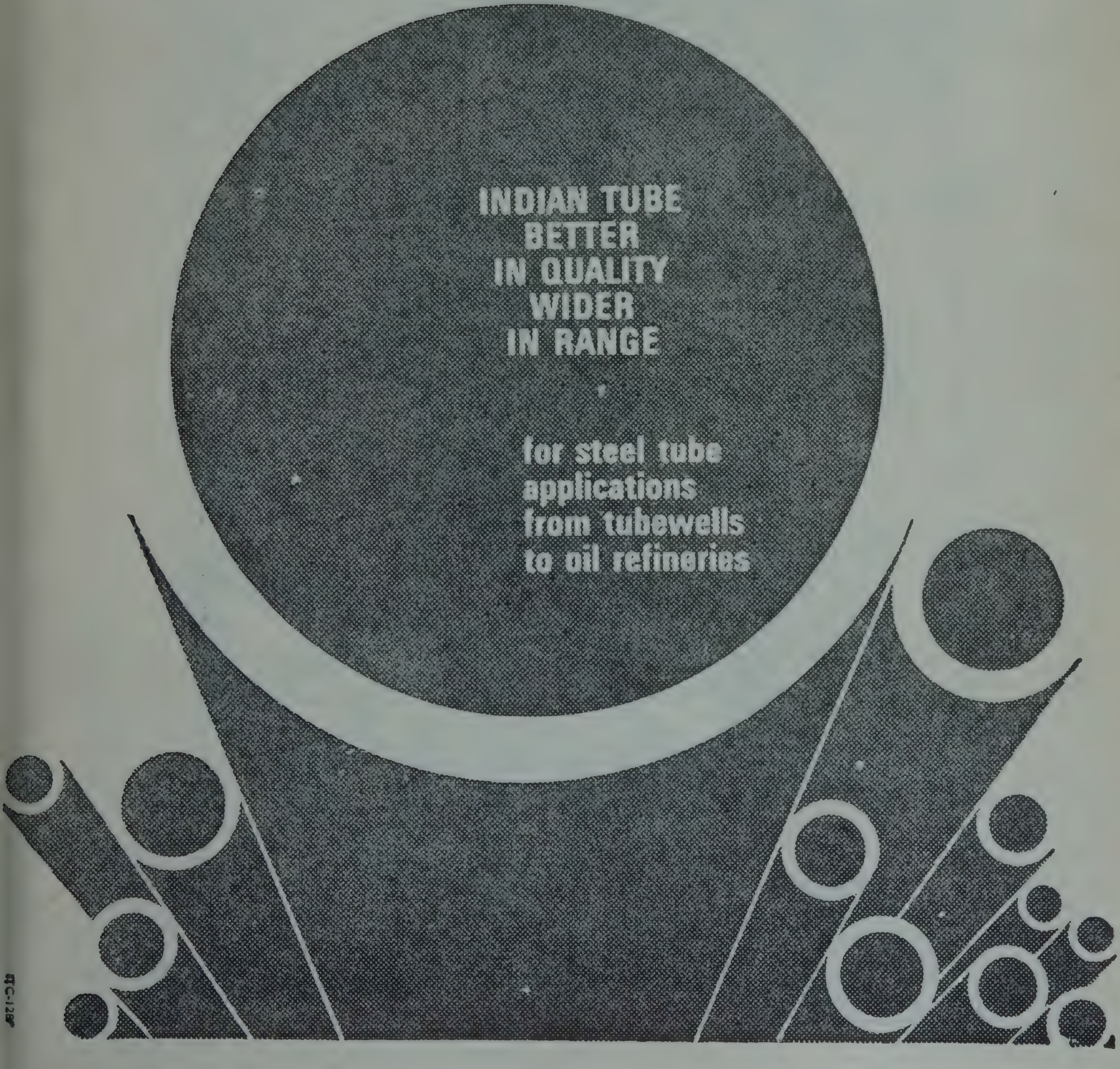

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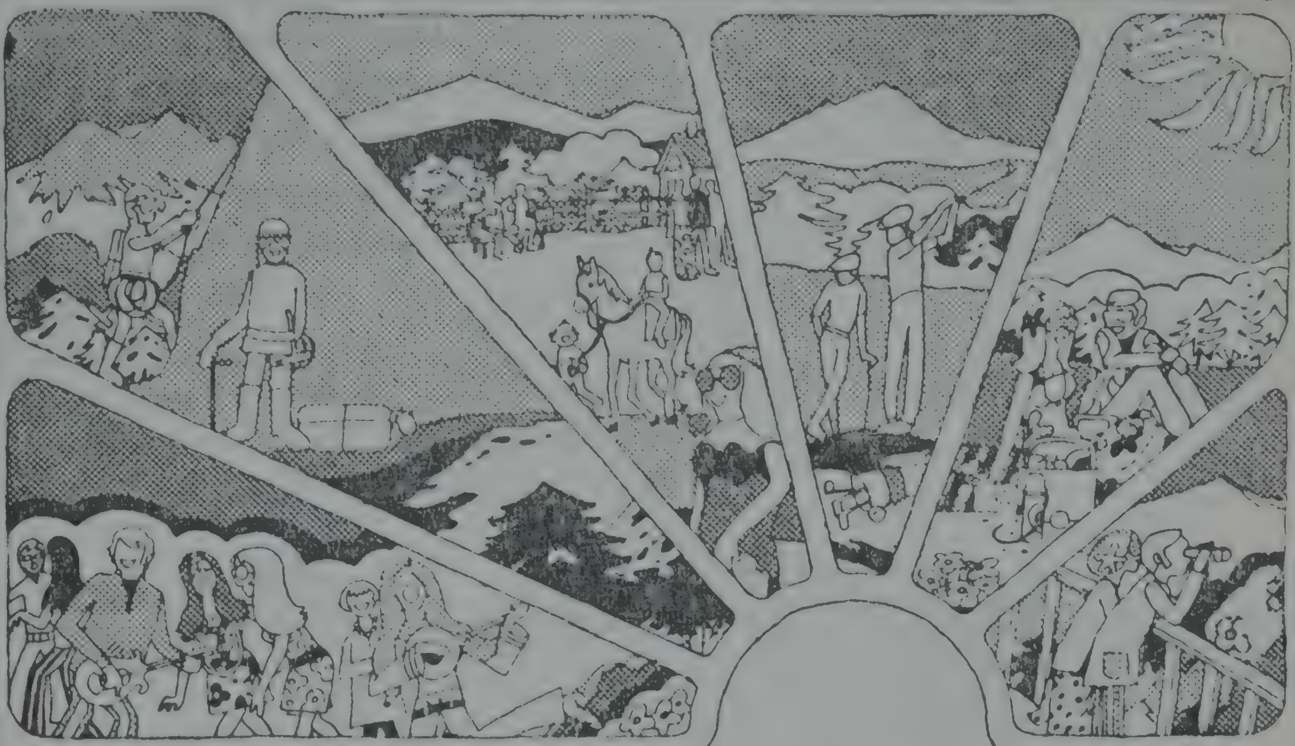

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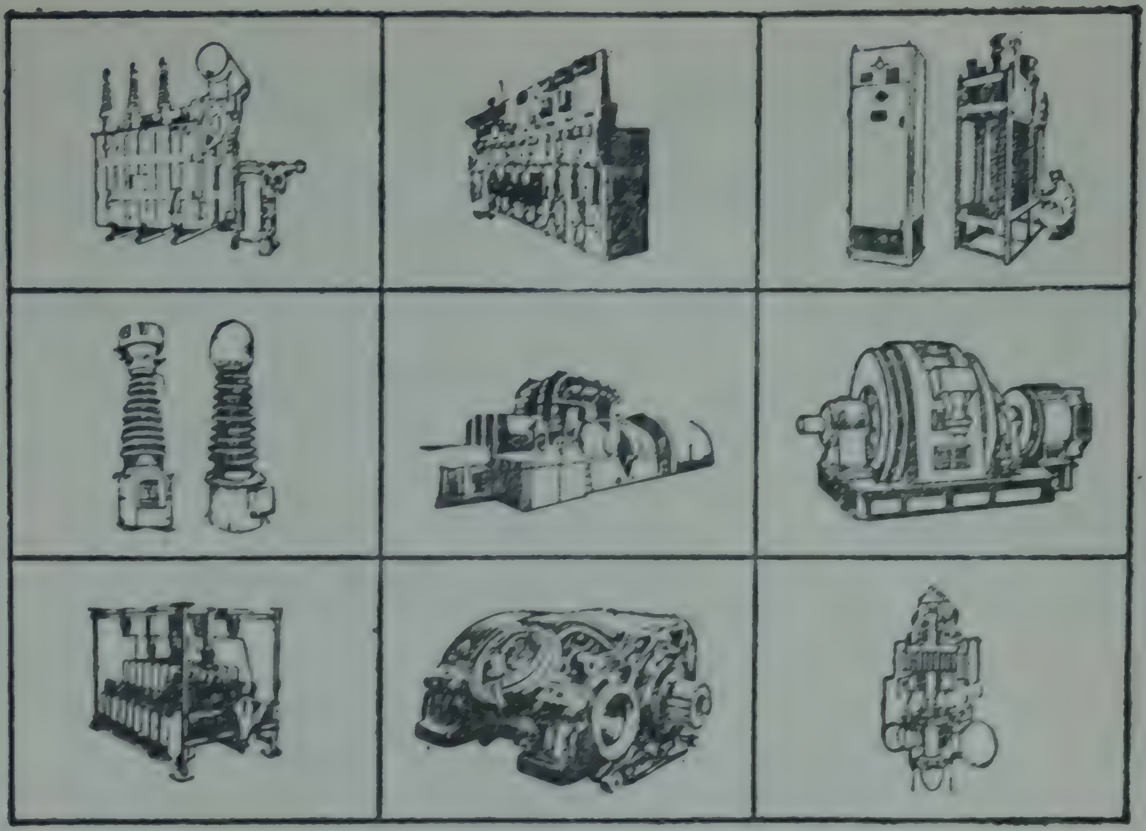

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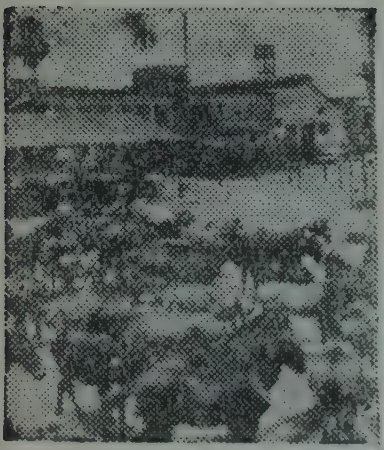

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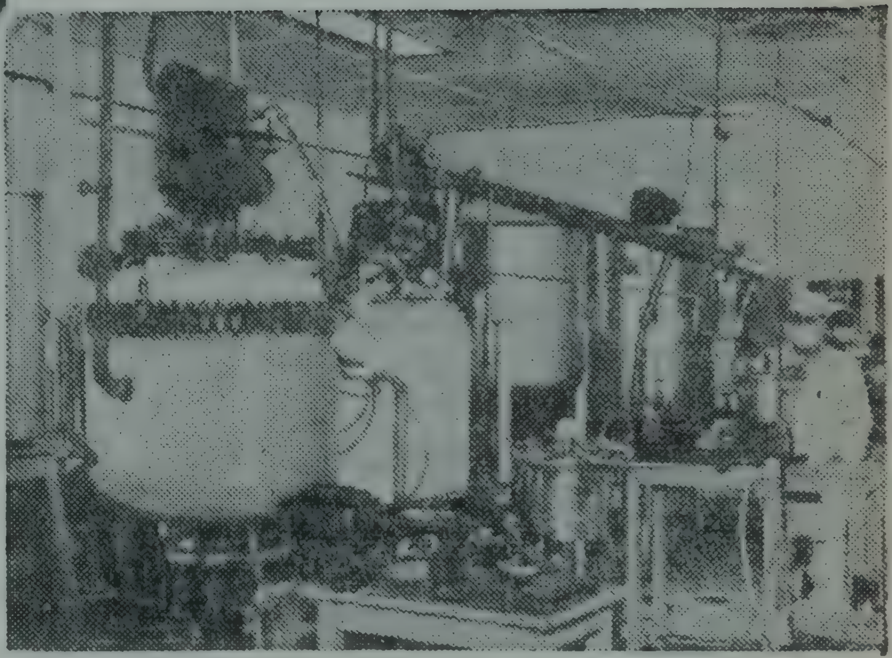

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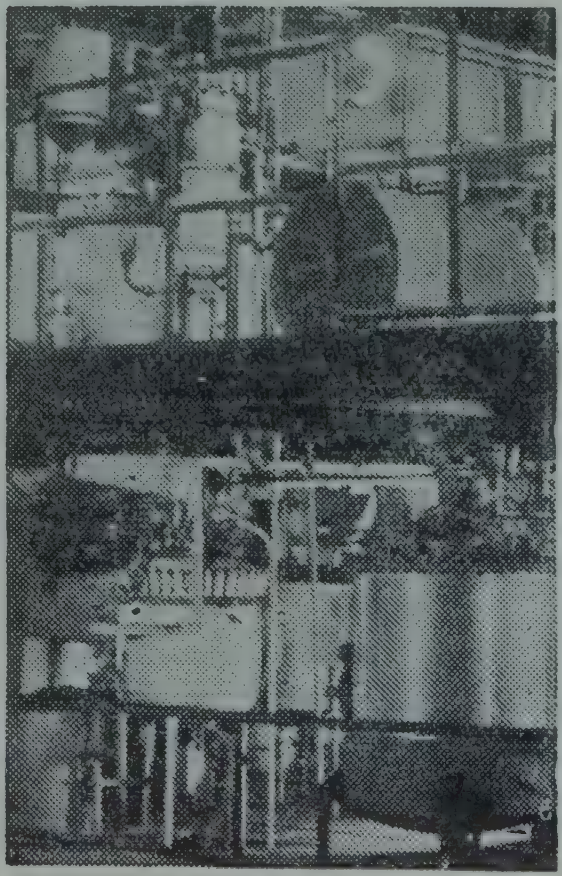

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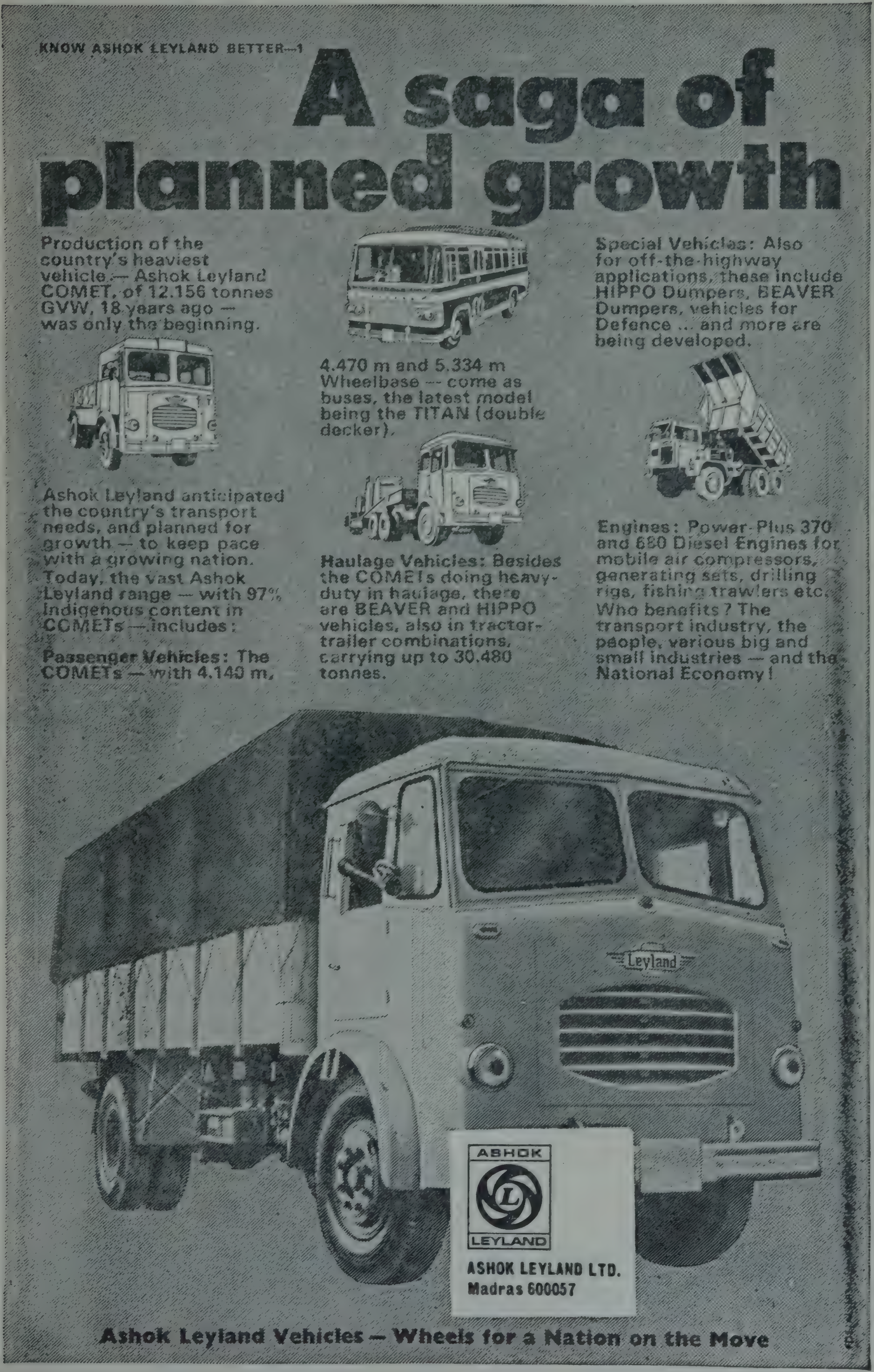

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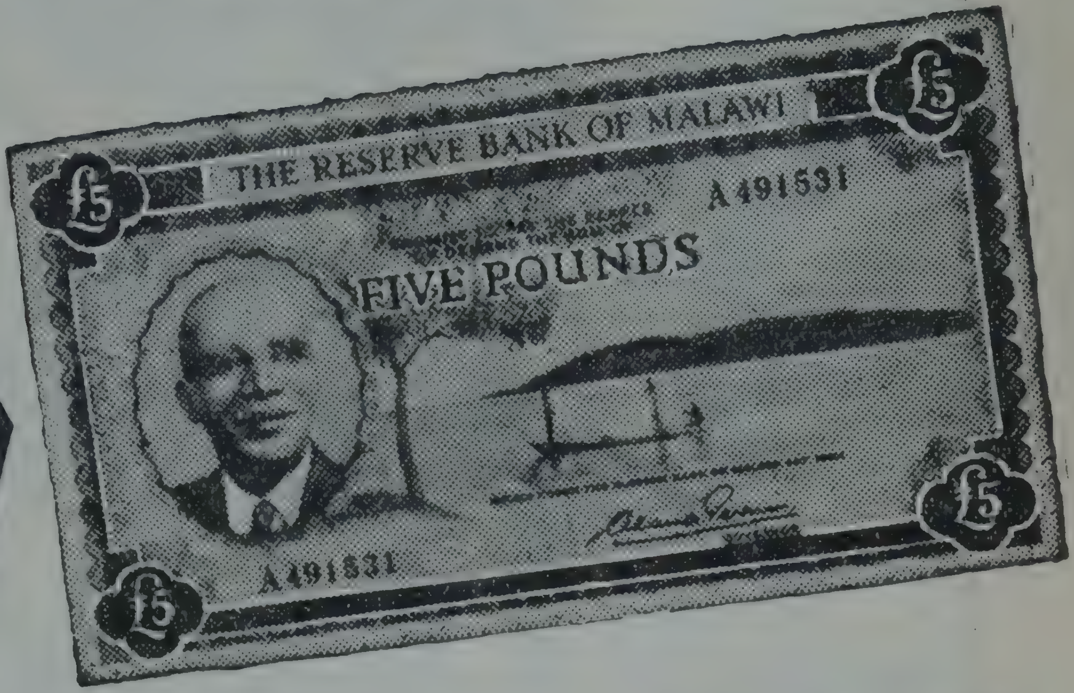

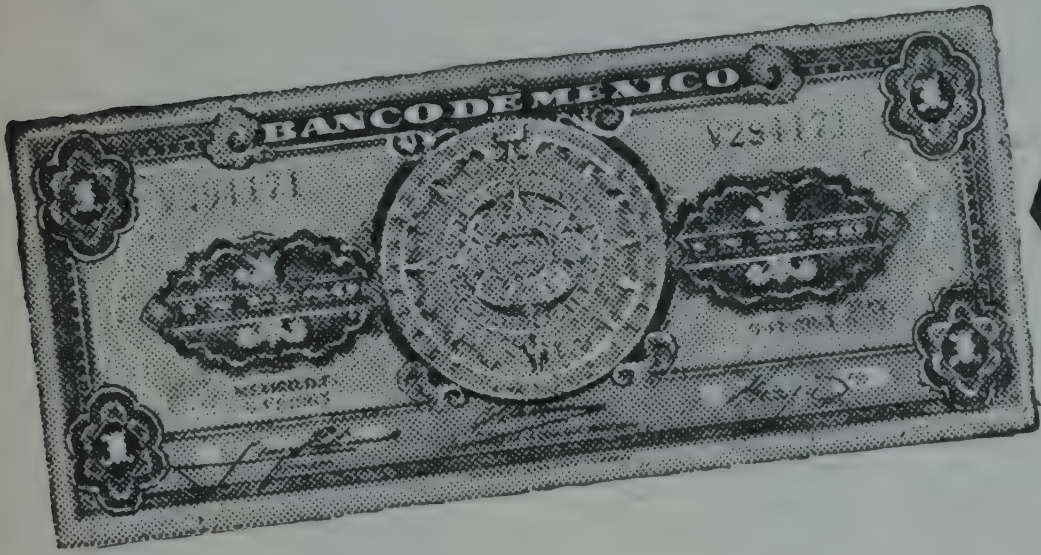

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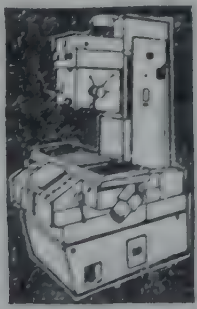

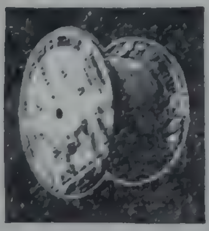

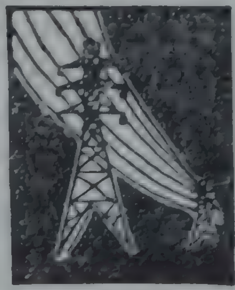

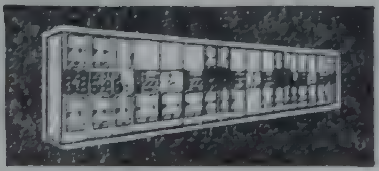

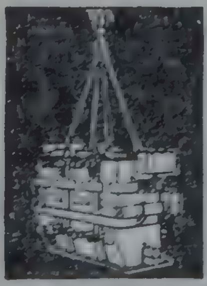

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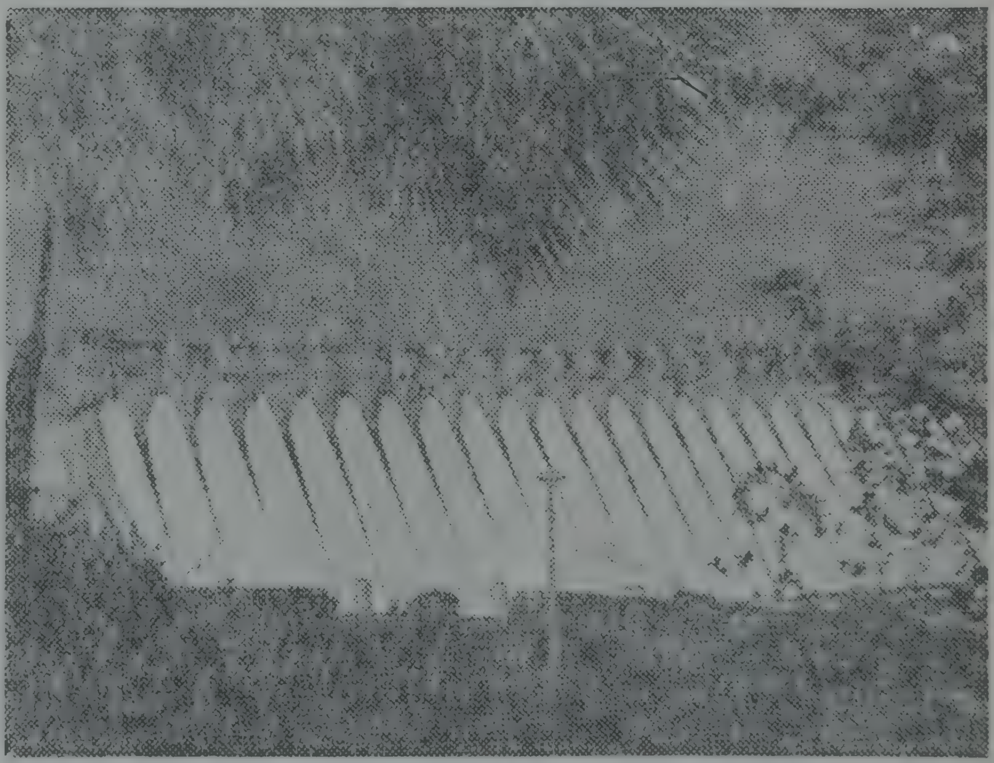

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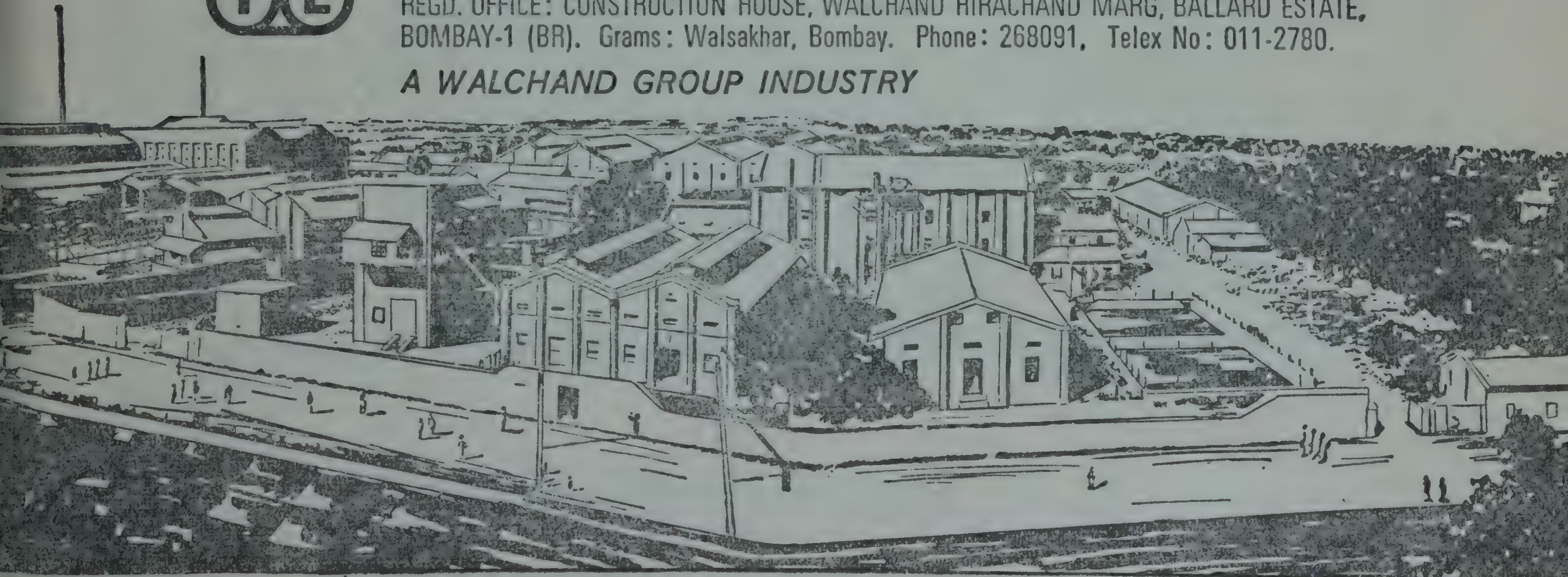

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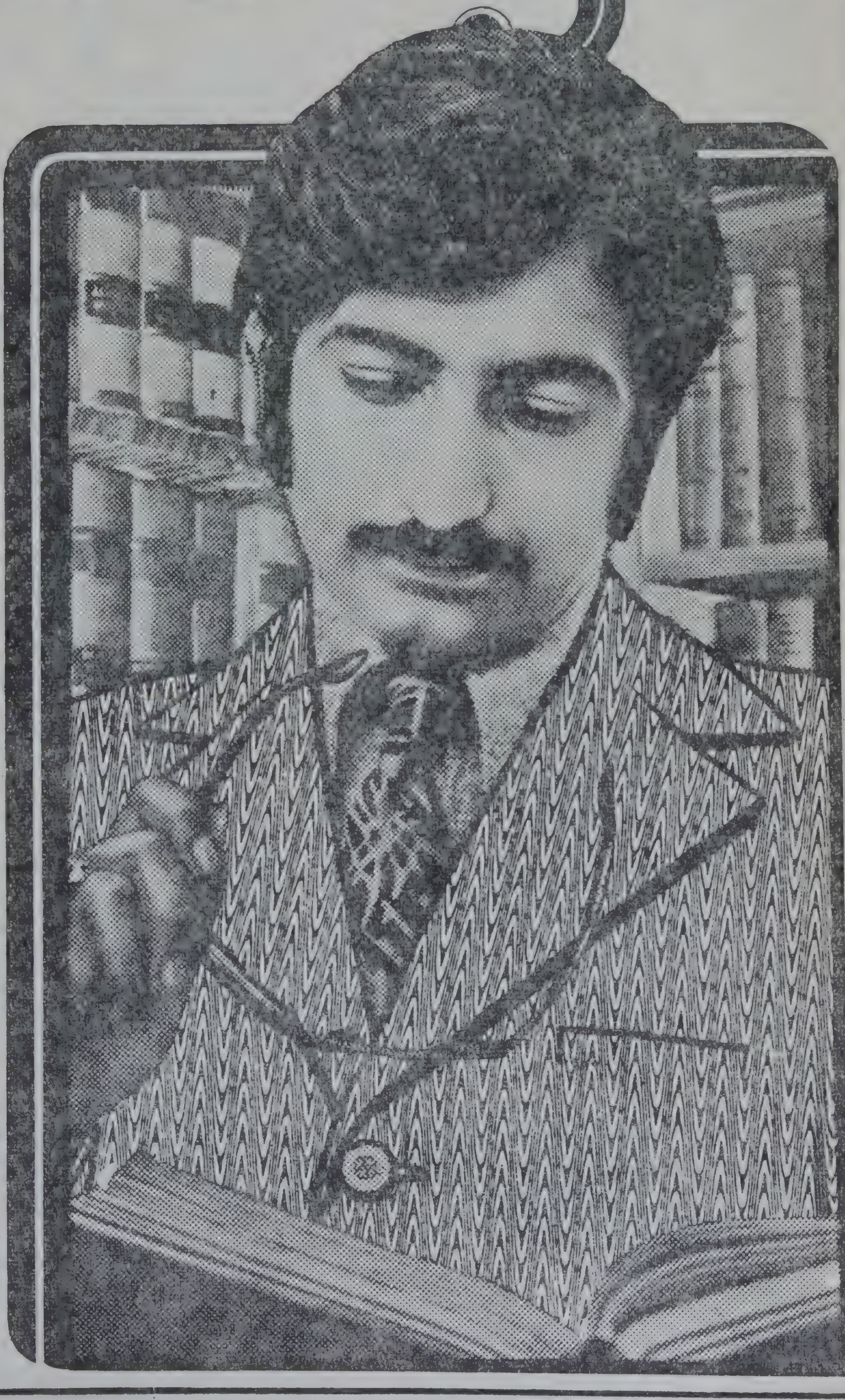

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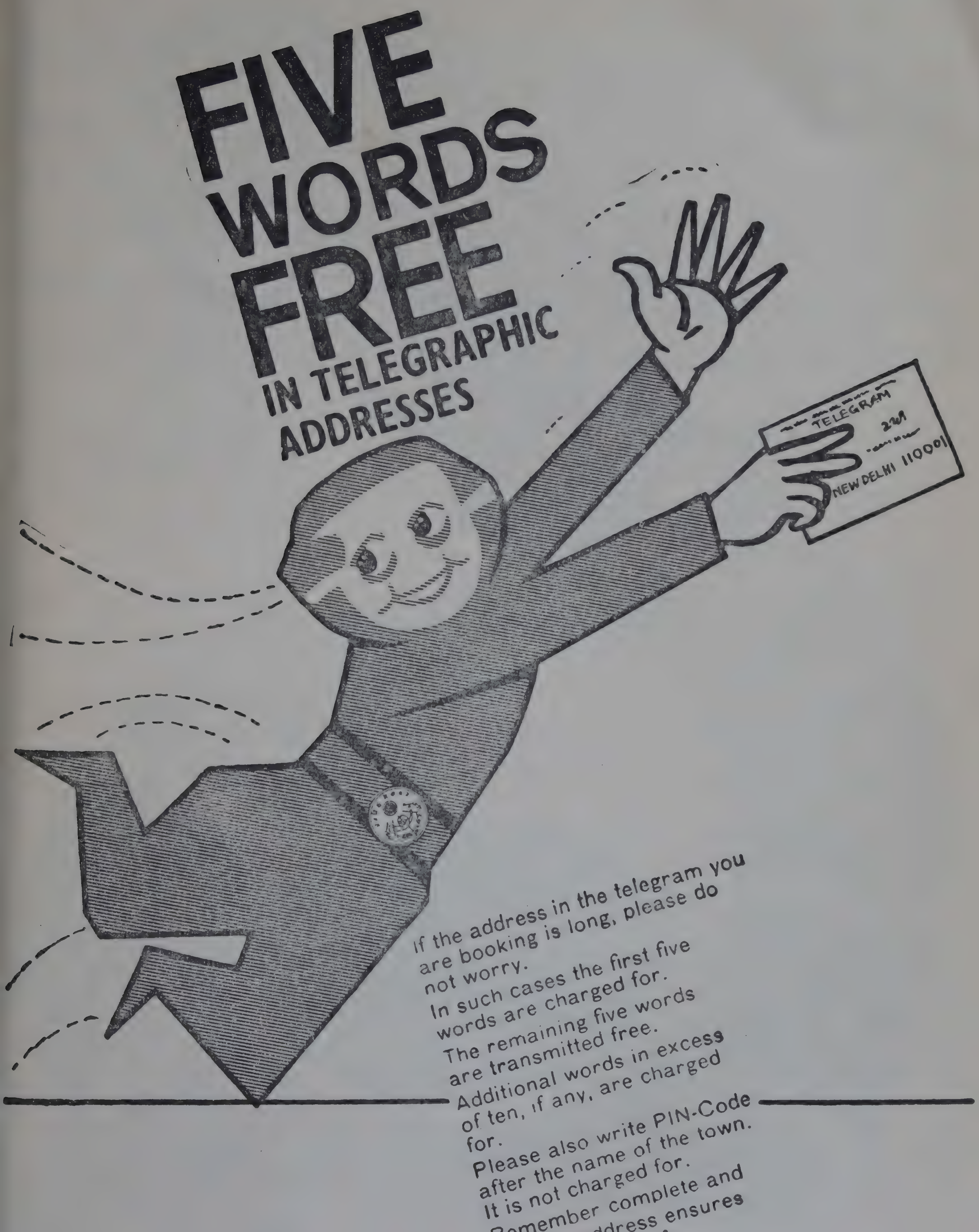

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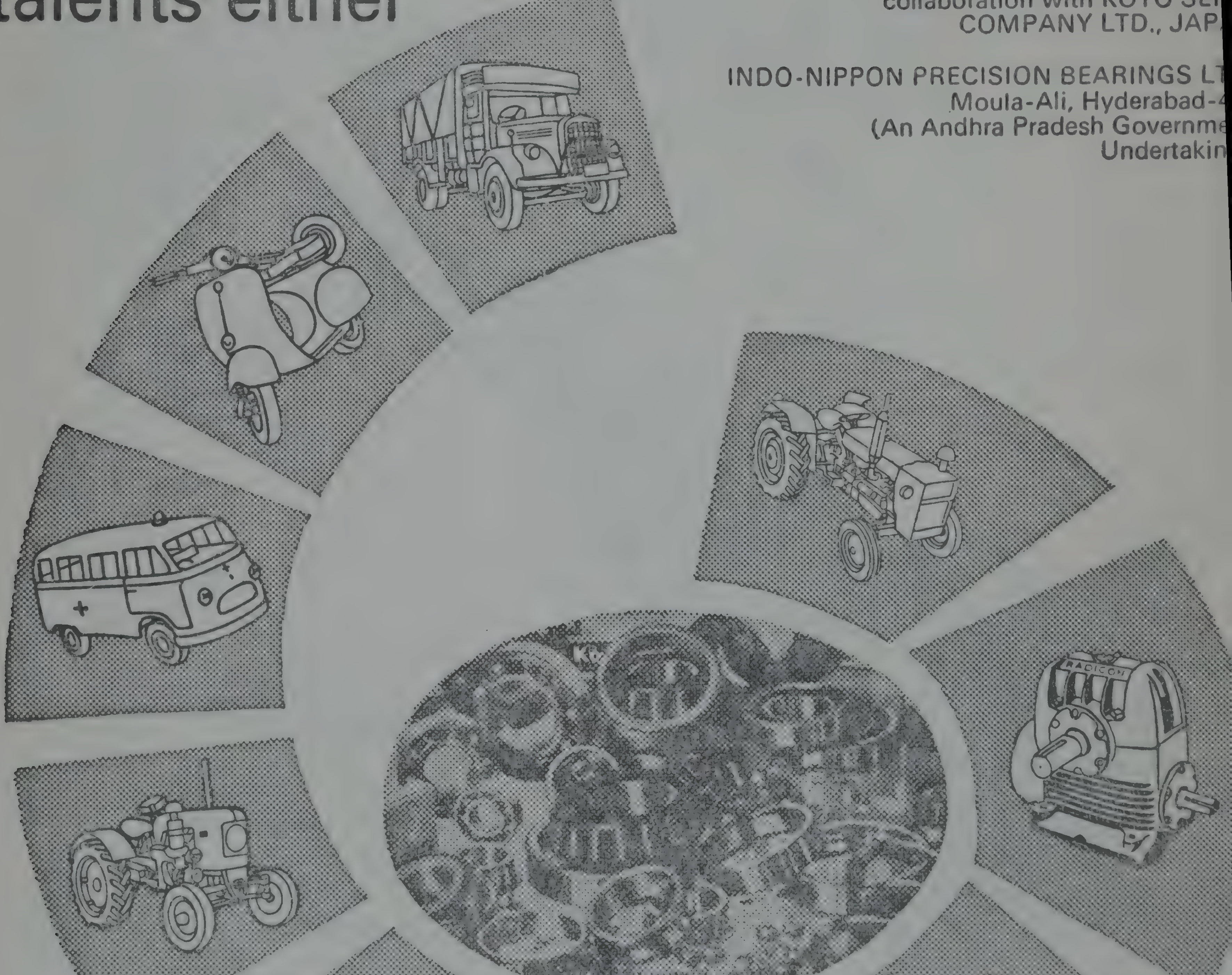

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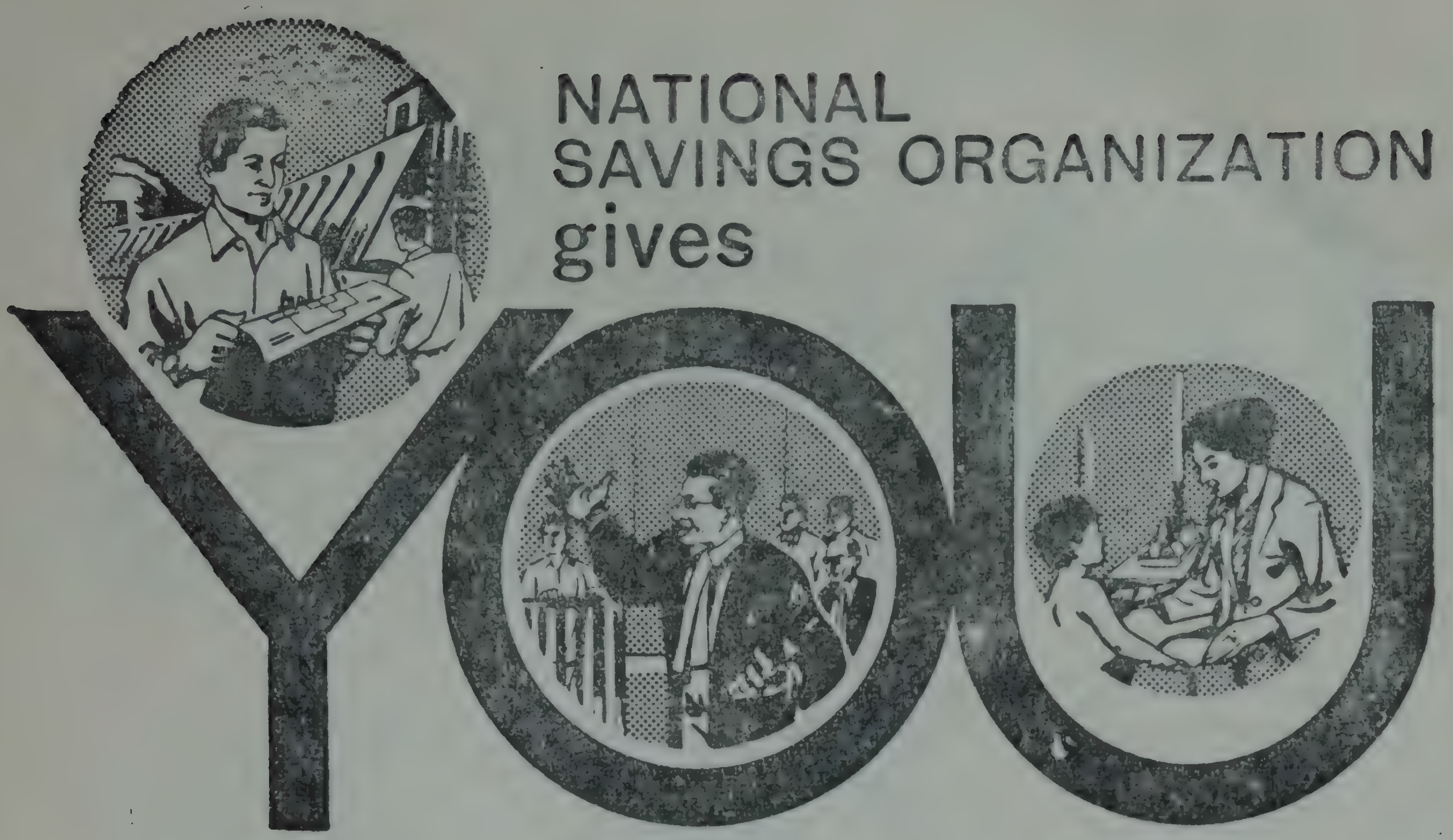

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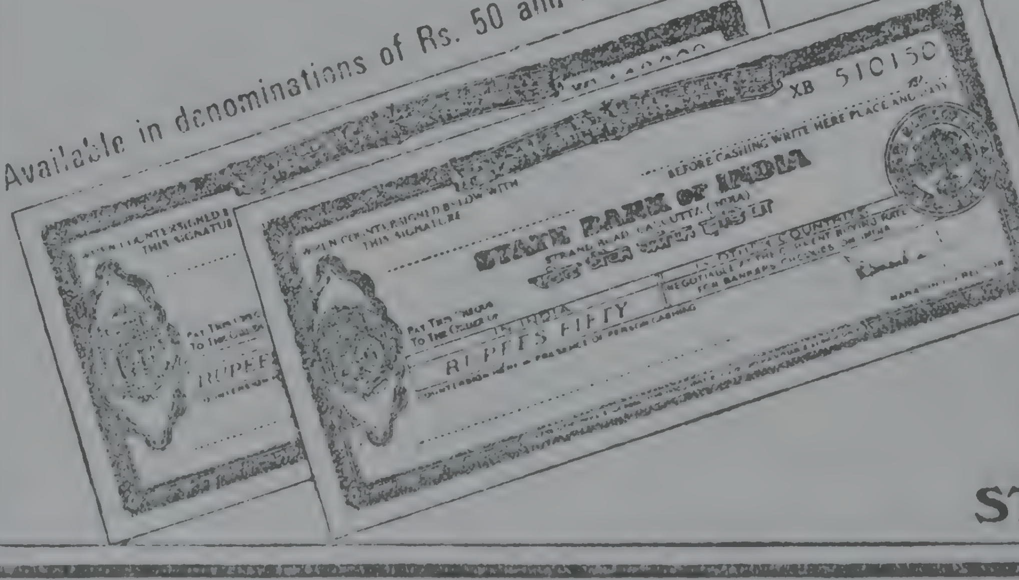

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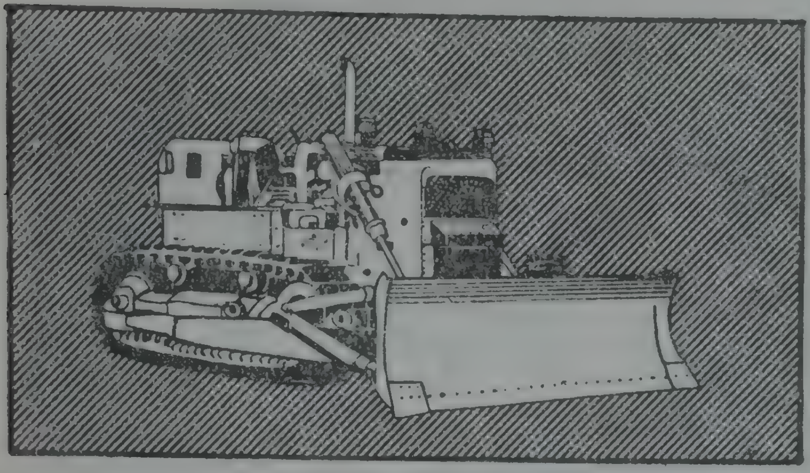

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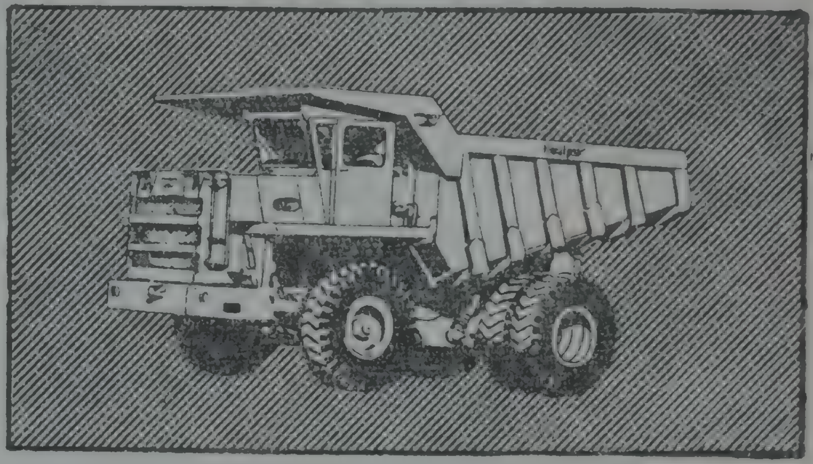

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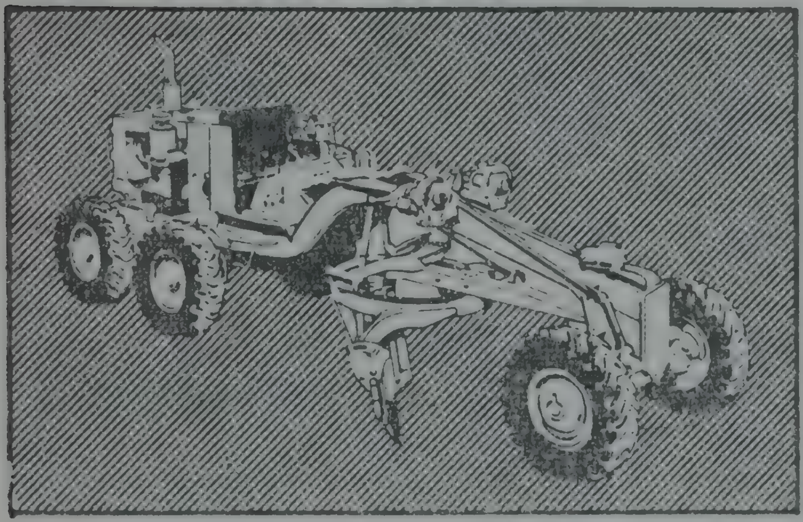

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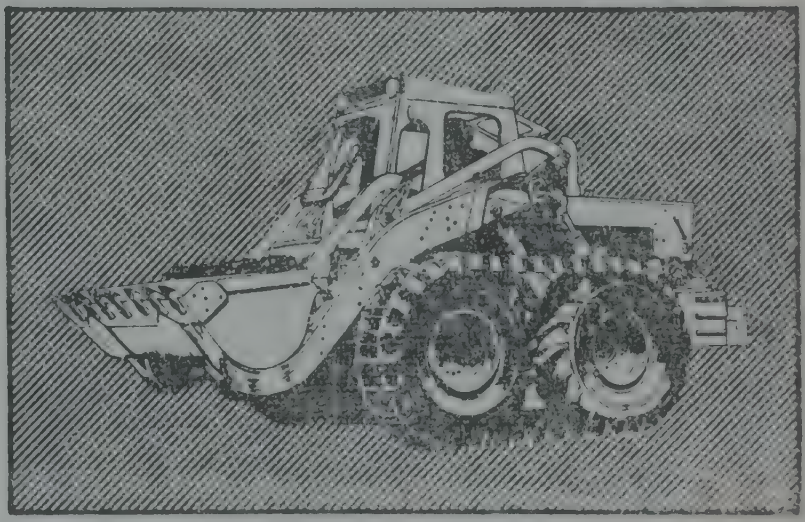

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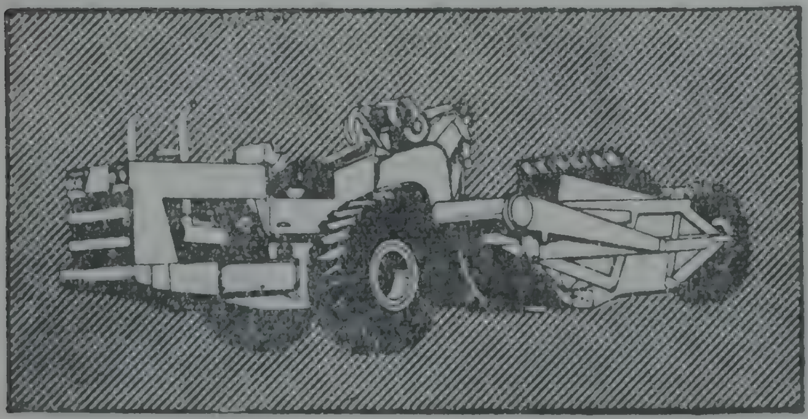

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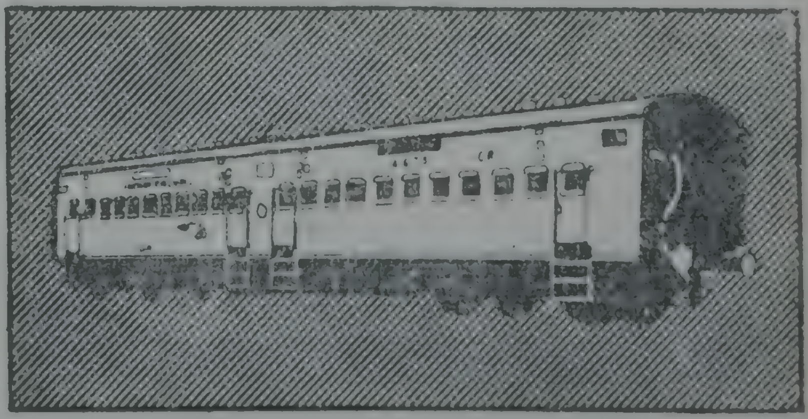

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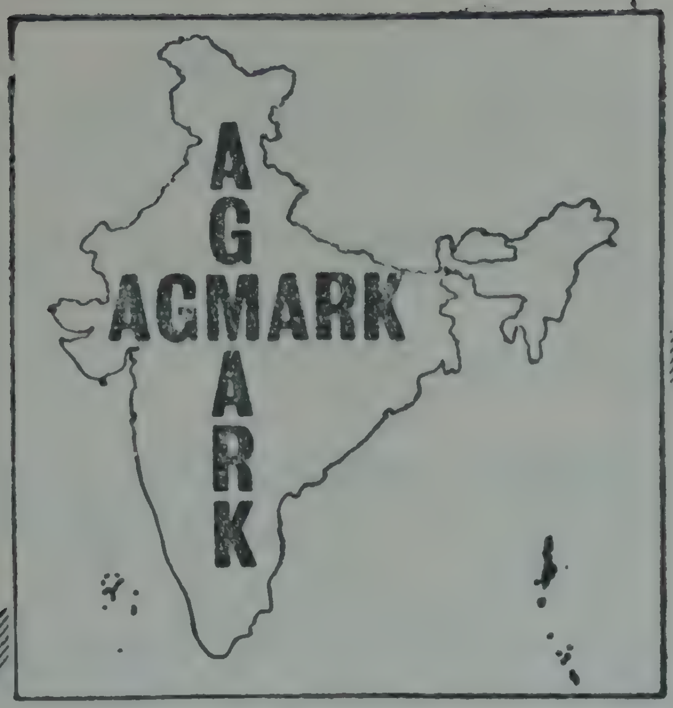

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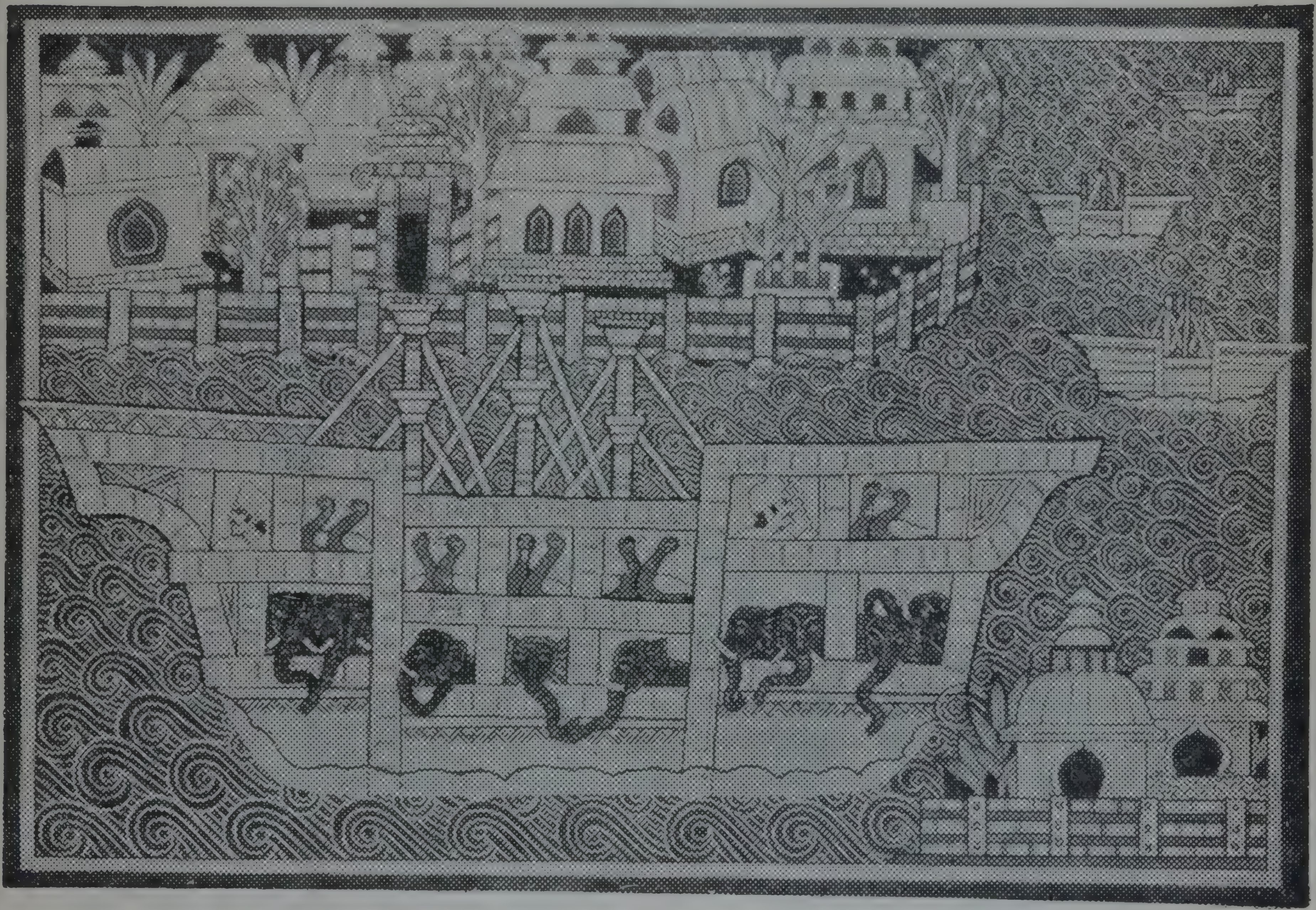

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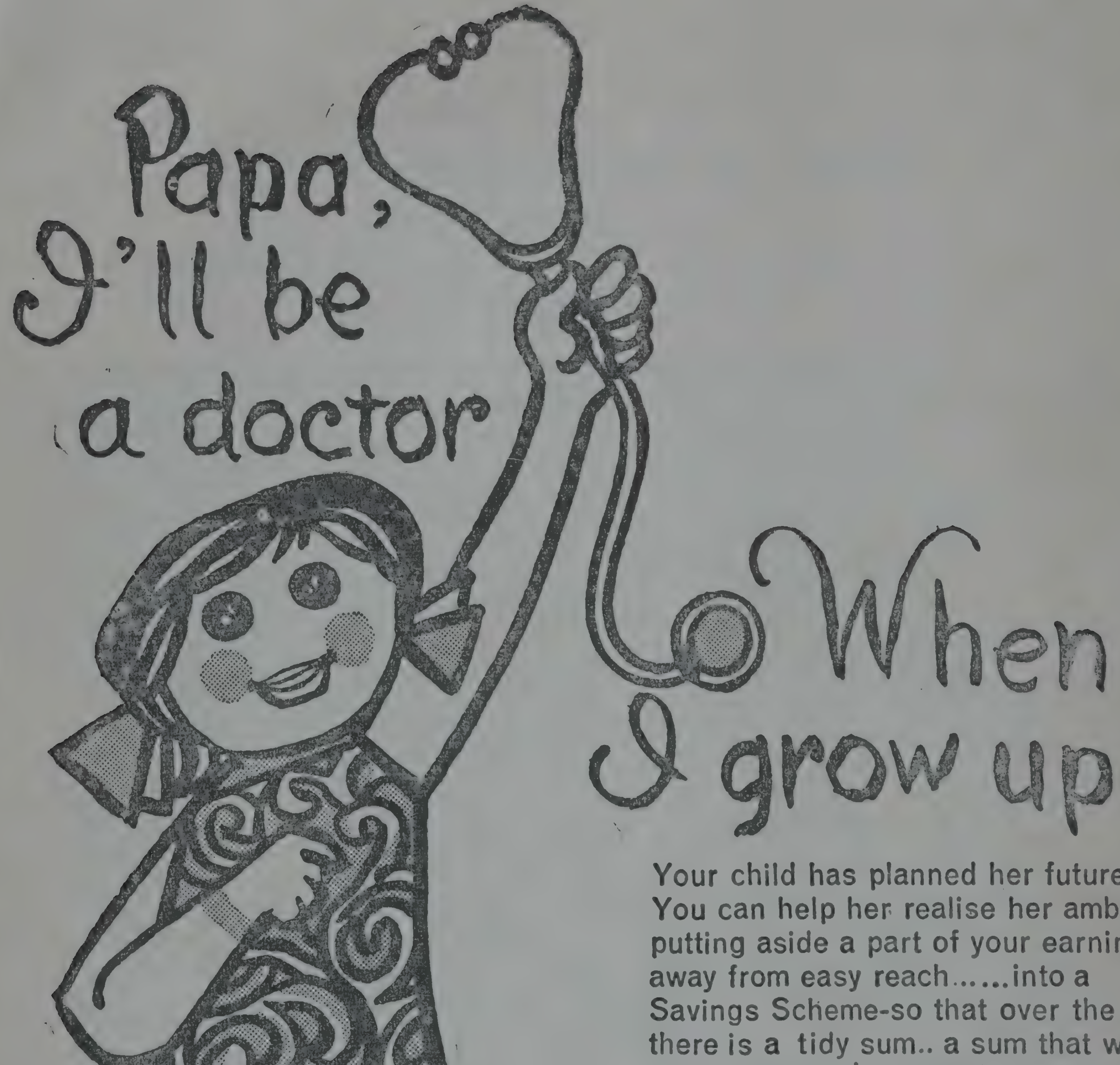

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Ad. 70

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DELHI DEVELOPMENT AUTHORITY

what we are doing for our jhuggi jhompri (RESETTLEMENT) colonies

About 3 lakhs of our fellow-citizens live in 16 jhuggi-jhonpri (Resettlement) colonies of the Delhi Development Authority. To create healthy and happy environment and to bring about conditions conducive to economic growth and social regeneration, a number of measures have been taken. Some of these measures are listed below :-

(1) SEWERS :

Wherever it is possible to obtain connections with the trunk service lines, sewers are being laid. The colonies, in which sewers are being laid now, are Wazirpur, Madangir and Madipur. The estimated cost of these works is about Rs. 10 lakhs.

(2) CONVERSION OF DRY LATRINES INTO FLUSH ONES :

All the dry latrines are gradually proposed to be converted into flush ones. The total cost of the projects is about Rs. 37 lakhs. The work has already been taken up in Madipur, Seelampur and Nangloi.

(3) AUGMENTATION OF WATER SUPPLY :

Supply of water is being improved in the 14 colonies at a cost of about Rs. 20 lakhs. Additional tubewells have been constructed in Wazirpur, Nangloi and Tigri colonies. Two additional tubewells are under construction in Hastsal and one additional tubewell in Seelampur. In Seemapuri direct water line has recently been laid from Shahdara.

(4) OVERHEAD TANKS :

To increase water pressure, overhead tanks are being constructed at the cost of about Rs. 13 lakhs. Work has already commenced in Wazirpur, Nangloi, Tigri, Hastsal, Madangir and Seemapuri.

(5) STORM WATER DRAINS :

Storm water drains in all the colonies are being desilted, repaired and improved. The deeper drains are being covered. The total cost of these projects is about Rs. 30 lakhs

(6) WIDENING AND PAVEMENTS OF EXISTING LANES :

To avoid slushy conditions during the rains, the lanes are being properly paved. Some of the narrow lanes are also being widened. The total cost on these projects is about Rs. 34 lakhs.

(7) STREET LIGHTING :

Street lights exist on the main roads and additional lights are being provided at a cost of about Rs.7 lakhs the side-lanes and by-lanes.

(8) PARKS AND PLAYGROUNDS :

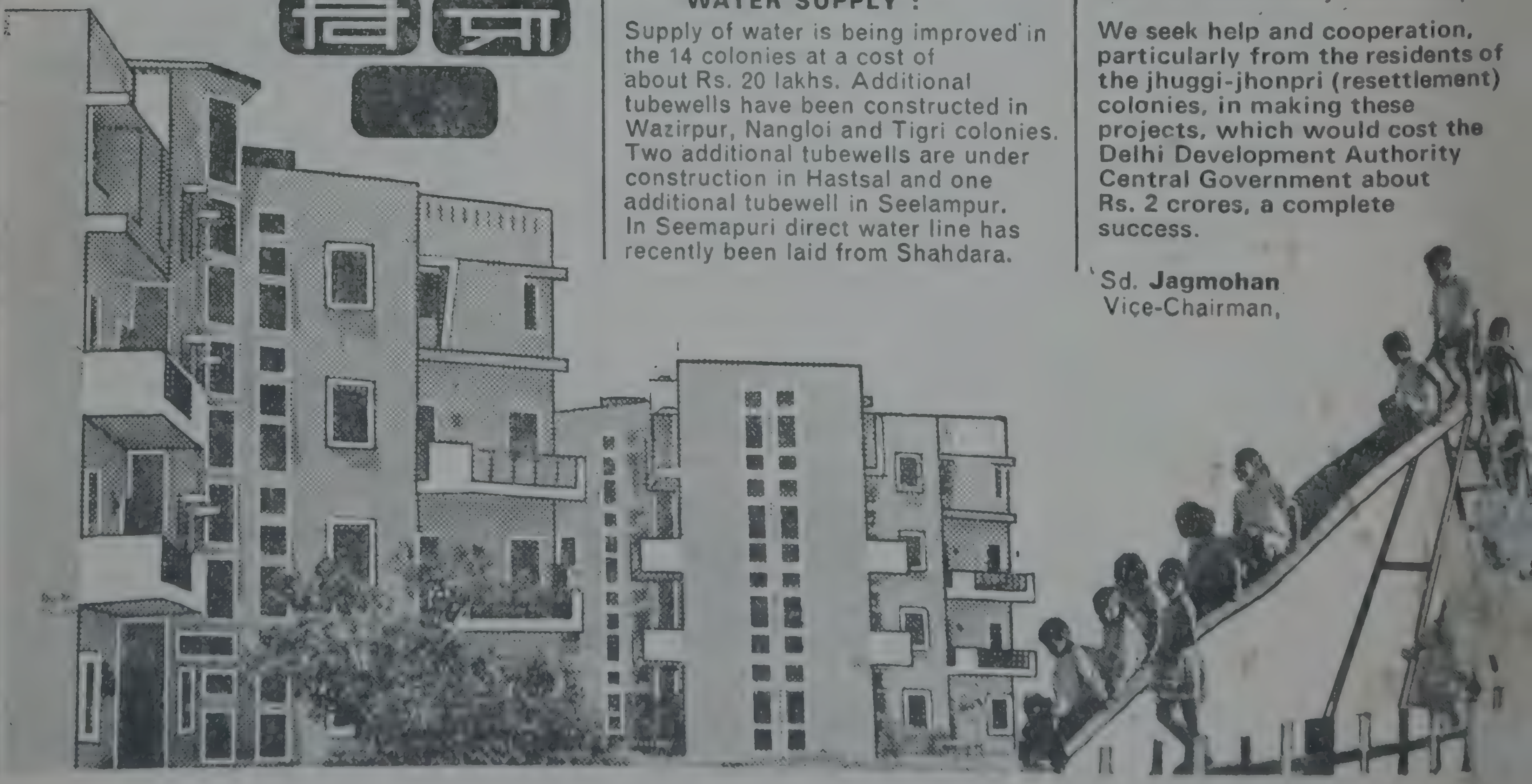
118 parks and playgrounds have been developed and more are under development. Urinals and dust-bins are also being provided.

(9) COMMUNITY CENTRES :

Television centres, libraries, dispensaries and community halls with wide parks and playgrounds are being set up. In 5 colonies, these centres have already been set up.

We seek help and cooperation, particularly from the residents of the jhuggi-jhonpri (resettlement) colonies, in making these projects, which would cost the Delhi Development Authority Central Government about Rs. 2 crores, a complete success.

Sd. **Jagmohan**
Vice-Chairman,



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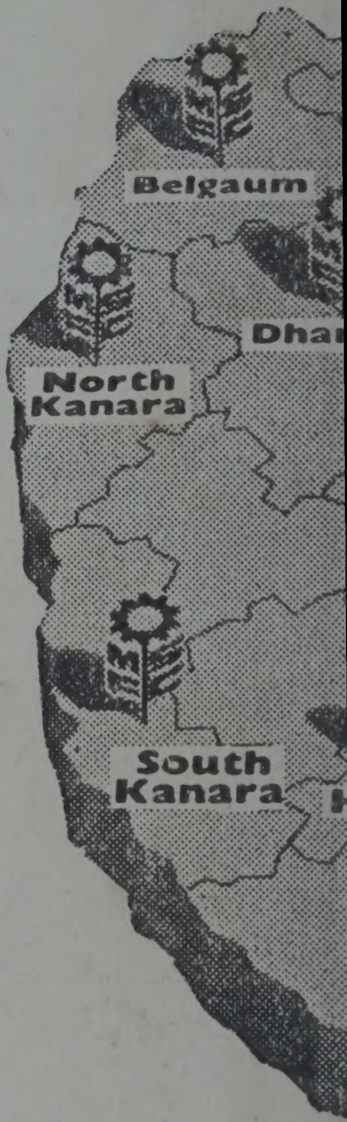

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